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ROYAL ALBERT DOCKS.

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RHYNCHOTA.—Vol. II.
(HETEROPTERA)

BY

W. L. DISTANT.

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THE LONDON SCHOOL OF TROPICAL MEDICINE
ROYAL ALBERT DOCKS, E.

PREFACE.

The second volume of the Rhynchota, by Mr. W. L. Distant, is published in two Parts, of which the first, comprising pp. 1–242, appeared in December 1903, and the other is now issued. Several of the families included in the volume have hitherto received but little attention in India, and consequently the number of genera and species described for the first time is considerable.

The first volume of Rhynchota, containing the families Pentatomidæ, Coreidæ, and Berytidæ, was issued in June 1902. The present volume contains nearly all the remaining families of the Gymnocerata, and includes the Lygæidæ, Pyrrhocoridæ, Tingididæ, Phymatidæ, Aradidæ, Hebridæ, Hydrometridæ, Henicocephalidæ, Reduviidæ, Saldidæ, Ceratocombidæ, Cimicidæ, and Capsidæ, leaving the Anthocoridæ and the Cryptocerata to be described in order to complete the account of the Indian Heteroptera. The Homoptera also remain to be dealt with.

A sketch of the structural details and a brief account of the scheme of classification, with a synopsis of the families of Heteroptera, were comprised in the Introduction to the first volume. All general remarks not contained in that Introduction are deferred by the Author until the Rhynchota are completed.

In other volumes of the 'Fauna of British India' now in

preparation or under consideration, it is proposed to include certain families of Beetles (Coleoptera), the Butterflies, and the Land-Mollusca. The families of Beetles to be first described are of economic importance on account of the injury they do to forests and agriculture.

W. T. BLANFORD.

April 1904.

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THE LONDON SCHOOL OF TROPICAL MEDICINE;
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BOYAL ALBERT DOCKS, E.

Order RHYNCHOTA.

Suborder *HETEROPTERA*.

Family LYGÆIDÆ.

This family is of considerable extent, and is of importance to agriculturists on account of the depredations committed by many of its members. It includes many well-known insect-pests, but the injuries caused by the species of Lygæidæ to cultivated and indigenous plants are not yet sufficiently understood, and we are likely to hear much more on this subject when the national importance of economic entomology is more generally recognized. The insects are mostly of small size, and (excluding the subfamily Lygæinæ) are of dull and inconspicuous coloration, while the character of micropterism, or abbreviation of the hemelytra, is found in not a few genera. With some exceptions the species are mainly terrestrial, and found under stones, dead leaves, and other rubbish, in moss and in herbage, where they may be captured by sweeping.

The family has also been known under the name of "Infericornia" (*Infericornes*, Amyot), but is now almost universally termed Lygæidæ.

Antennæ inserted below a line drawn from the centre of the eye to the apex of the face; ocelli present; corium without an appendix; membrane generally with four, but not with more than five veins.

In the Catalogue of Lethierry and Severin thirteen subfamilies are enumerated, but nine only can be recognized amongst Indian Rhynchota.

Synopsis of Subfamilies.

A. Abdominal segments nearly equally long.
  a. All the abdominal stigmata situate on the connexivum.
    a. Hemelytra not, or very slightly, punctured . . *Lygæinæ*.
    b. Hemelytra distinctly punctured . . . . *Cyminæ*.

b. Stigmata of one or more abdominal segments ventral in position.
 a. All the ventral incisures reaching the lateral margins.
  a'. Stigmata of the sixth segment alone ventral in position .... *Blissinæ.*
  b'. Stigmata of all, or at least of last three, segments ventral in position.
   a^2. Head broad, recurved in front of eyes to apex .... *Geocorinæ.*
   b^2. Head neither very broad nor recurved in front of eyes to apex.
    a^3. Membrane without basal cells.
     a^4. Anterior femora much incrassated and spined beneath; rostrum short, either not extending beyond or only slightly beyond anterior coxæ .... *Pachygronthinæ.*
     b^4. Anterior femora not incrassated; rostrum long, extending considerably beyond anterior coxæ .... *Oxycareninæ.*
    b^3. Membrane with basal cells.... *Heterogastrinæ.*
 b. Third ventral incisure not reaching the lateral margins, near which it is recurved........................ *Aphaninæ.*
B. Abdomen contracted at base; second and third segments very long .... *Colobathristinæ.*

Subfamily I. LYGÆINÆ.

In this subfamily the abdominal segments are nearly equally long, all the stigmata are situate on the connexivum, and the hemelytra are either not or very slightly punctured.

The Lygæinæ are very widely distributed and comprise the most highly coloured representatives to be found in the whole family Lygæidæ.

Division *LYGÆARIA.*

Lygæaria, *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 40; *id. En. Hem.* iv, p. 98 (1874).

Hemelytra either totally or to a very considerable extent fuscous or infuscated; apical margin of corium straight.

The *Lygæaria* contain a number of genera which are both necessary and valid, but constructed on characters which are unavoidably of a somewhat superficial character. Most of these genera were founded by Stål, who was the first to really study the group, and although colour differences have been often used

by him as differential characters, all subsequent students and workers have followed and employed his divisions. Many of the genera possess most distinctive facies, but afford few good structural characters that can be used in a differential diagnosis. In small insects of a soft structure this difficulty is frequently found.

Synopsis of Genera.

A. Eyes stylated .... ASTACOPS, p. 3.
B. Eyes not stylated.
  a. Base of pronotum sinuate, posterior angles a little posteriorly produced .... ONCOPELTUS, p. 4.
  b. Base of pronotum straight, posterior angles not produced.
    a. Head not tumid behind eyes, which touch, or nearly touch, anterior margin of pronotum.
      a′. Metapleuræ posteriorly straight or somewhat roundly truncate, posterior margin not oblique. Orifices black . LYGÆUS, p. 5.
      b′. Metapleuræ posteriorly obliquely truncate. Orifices red or pale coloured.
        a^2. Head either totally, or mostly, red or pale coloured*.
          a^3. Rostrum long; orifices black .. PYRRHOBAPHUS, [p. 14.
          b^3. Rostrum of moderate length; orifices red or flavescent ...... GRAPTOSTETHUS, [p. 8.
        b^2. Head either totally or almost black.
          a^4. Orifices black, body sericeous.. ASPILOCORYPHUS, [p. 11.
          b^4. Orifices red or pale, body pilose. LYGÆOSOMA, p. 13.
      c′. Metapleuræ posteriorly externally strongly produced .... MELANOTELUS, p. 12.
    b. Head tumid behind eyes, which are well separated from anterior margin of pronotum.
      a′. Second and fourth joints of antennæ subequal, or fourth shorter than second.......................... AROCATUS, p. 15.
      b′. Fourth joint of antennæ distinctly longer than second .... CÆNOCORIS, p. 16.

Genus ASTACOPS.

Astacops, *Boisd. Voy. Astrol., Ent.* ii, p. 637 (1835); *Stål, En. Hem* iv, p. 98 (1874).

Type, *A. australis*, Boisd., from New Guinea.

Distribution. Malay Archipelago and Australasia. A species now described from British India.

Eyes stylated; ocelli much nearer to each other than to eyes; scutellum not tumescent, but distinctly carinate; lateral margins

* In *Pyrrhobaphus leucurus* a variety occurs in which the head is wholly or nearly black.

of pronotum anteriorly rounded; pronotum not or obsoletely punctate; first joint of the posterior tarsi longer than the two other joints together.

689. **Astacops occidentalis**, sp. n.

Pale sanguineous; sternum and abdomen ochraceous; eyes, about apical third of lateral margins to corium, abdomen above, lateral margins of abdomen beneath (excluding base and apex), and disks of third, fourth, and fifth abdominal segments black; legs and antennæ pale sanguineous; membrane fuliginous; first joint of antennæ about reaching apex of head, second joint a little longer than third; rostrum black, basal joint pale sanguineous, apex reaching the intermediate coxæ coxæ and trochanters ochraceous; scutellum with a strong cruciform carination.

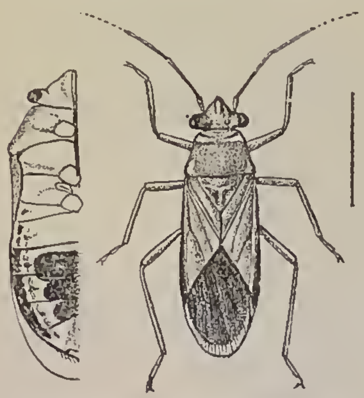

Fig. 1.—*Astacops occidentalis.*

Length 12 millim.

Hab. Sylhet (*Vienna Museum*).

The first species of the genus as yet recorded from British India.

Genus **ONCOPELTUS.**

Oncopeltus, *Stål, Hem. Fabr.* i, p. 75 (1868); *id. En. Hem.* iv, p. 98 (1874).
Subg. Erythrischius, *Stål, En. Hem.* iv, p. 102 (1874).
Transvaalia, *Dist. Nat. in Transvaal, Append.* p. 253 (1892).

Type, *O. famelicus*, Fabr., a South-African species.

Distribution. Neotropical, Ethiopian, Oriental, and Australasian Regions.

Body elongate, depressed above; pronotum with the posterior margin sinuate, the posterior angles a little posteriorly produced, the lateral margins and a central carina prominent, the anterior area (apart from the carina) foveate; scutellum slightly tumescent; antennæ four-jointed, moderately robust; rostrum passing the posterior coxæ; corium covering more than two-thirds of the abdomen; membrane passing abdominal apex.

Only one species is at present known from British India.

690. **Oncopeltus nigriceps**, *Dall.* (Lygæus) *List Hem.* ii, p. 537 (1852); *Leth. & Sev.* (Lygæus) *Cat. Gén. Hém.* ii, p. 157 (1894); *id.* (Oncopeltus) *tom. cit.* p. 137.

Sanguineous; head, anterior area and posterior margin of pronotum, base of scutellum, a transverse central fascia to corium,

membrane, rostrum, antennæ, anterior area of prosternum, and the larger portion of meso- and metasterna, about apical half of disk and apex of abdomen black; membrane with a basal and discal spot both white.

Fig. 2.—*Oncopeltus nigriceps.*

Var. Head with the base and apex only black; pronotum and corium without any black markings; prosternum sanguineous; meso- and metasterna suffused with piceous.

Length $9\frac{1}{2}$ to 10 millim.

Hab. North Khási Hills (*Chennell*); Bombay (*Dixon*). Trivandrum.

Usually found in the Nidoong trees (*Euphorbia neriifolia*, Linn.). R. M. Dixon *in litt.*

Genus LYGÆUS.

Lygæus, *Fabr.* (pro parte) *Ent. Syst.* iv, p. 133 (1794); *id. Syst. Rhyng.* p. 203 (1803); *Stål, Öfv. Vet.-Ak. Förh.* 1872, n. 7, p. 41; *id. En. Hem.* iv, p. 99 (1874).

Lygæosoma, *Fieb.* (pro parte) *Eur. Hem.* pp. 45 & 167 (1861).

Lygæodon, *Puton, Ann. Soc. Ent. Fr.* 1869, p. 139.

Subg. Melanospilus, Stalagmostethus, Spilostethus, Graptolomus, Micropsilus, Melanostethus, Melanerythrus, *Stål, Hem. Fabr.* i, pp. 72, 73, 75, & 76 (1868).

Subg. Cosmopleurus, Melanocoryphus, *Stål, Öfv. Vet.-Ak. Förh.* 1872, n. 7, p. 41.

Subg. Hæmobaphus, Melanopleurus, Craspeduchus, Ochrostomus, Ochrimnus, *Stål, En. Hem.* iv, pp. 104, 105, & 113 (1874).

Subg. Eulygæus, *Reut. Act. Soc. Fenn.* xv, 1888, p. 180.

Subg. Tropidothorax, *Bergr. Ann. Soc. Ent. Belg.* xxxviii, p. 547 (1894).

Type, *L. militaris*, Fabr.

Distribution. A very extensive genus, almost universally distributed, largely represented in tropical America. Only six species are at present recorded from British India.

Lygæus differs principally from the preceding genus (*Oncopeltus*) by having the posterior margin of the pronotum straight; the scutellum more or less distinctly carinate from about middle to apex; the clavus posteriorly is subampliated.

A number of subgenera have been proposed, which really represent sections of a somewhat comprehensive genus, always possessing distinct common characters, though frequently exhibiting a more or less divergent facies. The species found in British India, however, are of a typical and little divergent character.

a. *Femora spined beneath.*

691. **Lygæus militaris**, *Fabr.* (Cimex) *Syst. Ent.* p. 717 (1775); *id. Ent. Syst.* iv, p. 147 (1794); pro syn. cf. *Leth. & Sev. Cat. Gén. Hém.* ii, p. 144 (1894).
Lygæus elegans, *Wolff, Ic.* iii, p. 112, f. 106 (1802).
Var. civilis, *Fabr.* (Cimex) *Mant.* ii, p. 298 (1787)=militaris, *Herr.-Sch. Wanz.* ix, p. 198 (1853)=lagenifer, *Duf. Rech. Hém.* pp. 45, 282, pl. iii, ff. 22–24 (1833).
Var. surinamensis, *Wolff, Ic.* iii, p. 111, f. 105 (1802).
Var. asiaticus, *Kolenati, Melet. Ent.* ii, p. 72, pl. viii, f. 12 (1845).

Pale sanguineous; apex of head and a spot at inner margins of eyes, antennæ, rostrum, pronotum (with the central anterior margin connected with two long arcuated fasciæ reaching posterior margin near lateral angles), scutellum, a small spot near apex of clavus, a transverse fascia (sometimes abbreviated) to corium, prosternum, margins of meso- and metasterna, abdominal segmental margins and stigmatal spots, and the legs black; membrane pale brownish-ochraceous, some of the basal veins black, and usually with a white spot at base, and two, sometimes coalescing, about middle. Femora distinctly spined beneath; rostrum reaching the intermediate coxæ.

A very variable species throughout its wide distribution; the pronotum has usually two large obscure ochraceous spots on basal area, while the membrane is also highly variable in hue, but seems constant, as described above, in the Oriental examples.

Length 13 to 16 millim.

Hab. Punjab; Murree (*Stoliczka*); Hardwár (*Wood-Mason*); Bombay (*Leith & Dixon*); Bangalore (*Cameron*). Mysore (*Coll. Dist.*). Burma; Mandalay (*Fea*), Minhla (*Comotto*).—Found in the Malay Archipelago and Australia (Queensland, *Coll. Dist.*); a common Palæarctic species and abundant in South Africa.

b. *Femora unarmed.*

692. **Lygæus hospes**, *Fabr. Ent. Syst.* iv, p. 150 (1794); *id. Syst. Rhyng.* p. 219 (1803); *Stål, Hem. Afr.* ii, p. 136 nota (1865).
Lygæus affinis, *Wolff, Ic.* iii, p. 110, f. 104 (1802).
Lygæus lanio, *Herr.-Sch. Wanz.* vii, p. 21, f. 705 (1844), *et* ix, p. 197 (1853).
Lygæus squalidus, *Montr. & Sign. Ann. Soc. Ent. Fr.* 1861, p. 66.
Var. familiaris, *Fabr.* (pro parte) *Spec. Ins.* ii, p. 363 (1781).

Fig. 3.—*Lygæus hospes.*

Pale sanguineous; apex of head and a spot at inner margins of eyes, antennæ, rostrum, two broad central discal fasciæ to pronotum (narrowed anteriorly and connected with an anterior marginal

fascia), scutellum (excluding apex, apex of clavus, and outer claval margin), a large central spot to corium, membrane, disks of sternum and abdomen, and legs black. Body finely pilose; rostrum passing the posterior coxæ; femora unarmed.

Length 10 to 13 millim.

Hab. Sind, Bombay, Madras (*Coll. Dist.*); Bangalore (*Cameron*), Nilgiri Hills (*Hampson*); Ceylon (*Green*); Burma; Mandalay, Bhamo (*Fea*).—This species is found in China and throughout the Malayan Archipelago; also in Australia (Queensland, *Coll. Dist.*), and is recorded from New Caledonia.

693. **Lygæus equestris,** *Linn.* (Cimex) *Faun. Suec.* p. 253 (1746); *id.* (Cimex) *Syst. Nat.* ed. xii, p. 726 (1767); pro syn. cf. *Leth. & Sev. Cat. Gén. Hém.* ii, p. 141 (1894).

Pale sanguineous, sometimes ochraceous; apex of head, a spot at inner margins of eyes, antennæ, rostrum, anterior area of pronotum terminating in two discal spots, posterior pronotal margin (not reaching lateral angles), scutellum, apical area of clavus, an irregular transverse fascia to corium, membrane, head beneath, sternum, legs, four longitudinal series of abdominal spots (two central and two lateral), and abdominal apex black; the black area of the sternum has six deeper black spots on each side; membrane with a basal and two discal white spots, the apical margin of the same colour, posterior lateral margin of the prosternum sanguineous. Rostrum passing the intermediate coxæ; femora unarmed.

Length 11 to 12 millim.

Hab. Punjab; Murree (*Stoliczka*).—A common Palæarctic species and found both in China and Japan.

The specimen from Murree is an ochraceous variety.

694. **Lygæus dohertyi,** sp. n.

Reddish-ochraceous; head, antennæ, rostrum, anterior area of pronotum (bilobed posteriorly), two large transverse spots on posterior pronotal margin, scutellum, apical half of clavus, a large discal obliquely curved spot to corium, membrane, sternum, legs, broad segmental margin and apex to abdomen black; posterior lateral margin of prosternum reddish-ochraceous; membrane with very obscure and narrow basal and discal greyish spots. Rostrum reaching posterior coxæ; femora unarmed.

Length 14 millim.

Hab. Burma; Karen Hills (*Doherty*).

695. **Lygæus fimbriatus,** *Dall. List Hem.* ii, p. 546 (1852); *Stål* (Melanospilus), *En. Hem.* iv. p. 104 (1874).

Reddish-ochraceous; apex and two large basal spots to head, antennæ, rostrum, two large spots on posterior area of pronotum sometimes preceded by two very small and obscure spots, clavus

(excluding apex), a large central marginal spot to corium, membrane, a sublateral sternal and abdominal segmental series of shining spots (connected on abdomen with broad segmental fasciæ), abdominal apex, and legs black; apical margins of membrane narrowly greyish. Rostrum reaching posterior coxæ; femora unarmed.

Length 7 to 8½ millim.

Hab. Assam; Margherita (*Doherty*), North Khási Hills (*Chennell*); Burma; Bhamo, Schwego Myo (*Fea*).—Described from Java, and recorded from the Philippines.

696. **Lygæus autolycus**, sp. n.

Ochraceous; a large triangular spot at base of head, two large spots on posterior pronotal margin united at their bases, margins of lateral angles, scutellum, a spot before apex of clavus, a large central marginal spot to corium, membrane, a lateral spot to pro-, meso-, and metasterna, apical abdominal segment, legs, antennæ, and rostrum black; apex of membrane narrowly greyish-white. Rostrum just passing the intermediate coxæ; femora unarmed.

Length 10 millim.

Hab. Burma; Karennee.

This, like the preceding species (*L. fimbriatus*), belongs to the subgenus or section *Tropidothorax*, Bergr. (*Melanospilus*, Stål).

Genus GRAPTOSTETHUS.

Graptostethus, *Stål, Hem. Fabr.* i, p. 73 (1868); *id. Öfv. Vet.-Ak. Förh.* 1872, n. 7, p. 42; *id. En. Hem.* iv, p. 99 (1874).

Type, *G. servus*, Fabr.

Distribution. Palæarctic, Ethiopian, and Oriental Regions.

Antennæ moderate in length, about one half the length of the body, the second and third joints subequal in length, or second longer than third; rostrum moderate in length, the first joint reaching or just passing the anterior margin of the prosternum; pronotum with the posterior margin straight, a central carina absent or subobsolete; scutellum beyond middle obtusely carinate; posterior margin of metasternum obliquely truncate, its posterior angles acute, their apices rounded; femora unarmed.

697. **Graptostethus servus**, *Fabr.* (Cimex) *Mant.* ii, p. 300 (1787); *id.* (Lygæus), *Ent. Syst.* iv, p. 156 (1794); *Dist. A. M. N. H.* (7) vii, p. 537 (1901); pro syn. cf. *Leth. & Sev. Cat. Gén. Hém.* ii, p. 148 (1894).

Lygæus incomptus, *Herr.-Sch. Wanz.* viii, p. 104, f. 875 (1848), *et* ix, p. 196 (1853).

Lygæus ornatus, *Uhler, Proc. Ac. N. S. Philad.* 1860, p. 227.

Lygæus inæqualis, *Walk. Cat. Het.* v, p. 57 (1872).

Var. maculicollis, *Germ. Faun. Ins. Europ.* p. 24 (1817).

Var. nigriceps, manillensis, *Stål, En. Hem.* iv, p. 117 (1874).

Pale obscure sanguineous, pilose; apex and sometimes the

whole central area of head, a small spot at inner margin of eyes, a transverse anterior fascia and two angulated subbasal fasciæ (sometimes connected) to pronotum, scutellum, a large oblique subclaval spot and a smaller marginal spot (sometimes fused) to corium, membrane, a large irregular spot on the lateral area of each sternal segment, abdomen (excluding margins), legs, antennæ, and rostrum black; basal spot and apical margin to membrane greyish. Rostrum about reaching the posterior coxæ.

Fig. 4.—*Graptostethus servus.*

Var. The angles detached from the two subbasal fasciæ to the pronotum, thus forming two small rounded spots situate between the anterior and posterior transverse fasciæ; the apical margin of the corium is often pale ochraceous.

Length 8 to 9 millim.

Hab. North Khási Hills (*Chennell*); Bombay (*Leith*); Bor Ghát (*Dixon*); Calcutta (*Atkinson*); Bangalore (*Cameron*); Nilgiri Hills (*Hampson*); Trivandrum; Ceylon (*Green*). Burma; Bhamo, Karennee, Teinzo (*Fea*).—Distributed throughout the Malayan Archipelago to Australasia; recorded from China; found in the South Palæarctic Region; common in South Africa.

698. **Graptostethus argentatus,** *Fabr.* (Lygæus) *Syst. Rhyng.* p. 228 (1803); *Dall. List Hem.* ii, p. 545 (1852); *Stål, Hem. Fabr.* i. p. 74 (1868).

Head, pronotum, and sternum pale purplish-red; antennæ, rostrum, eyes, a small spot near each of the ocelli at base of head, two small spots near anterior margin and two much larger spots near posterior margin of pronotum, and a spot on the lateral areas of each sternal segment black; scutellum, corium, abdomen beneath, and legs pale brownish-piceous; lateral margins and apex of scutellum, and bases of lateral margins of corium, pale purplish-red; membrane glossy black, its apical margin, small spots at base and sides, and apical margins of corium greyish-white; rostrum reaching posterior coxæ.

Length 7 to 7½ millim.

Hab. Bengal (*Stockholm Mus.*); Bombay (*Leith*); Nilgiri Hills (*Hampson*); Ceylon (*Green & Lewis*). Burma; Karennee (*Fea*).

699. **Graptostethus quadratomaculatus,** *Kirby* (Lygæus), *J. Linn. Soc., Zool.* xxiv, p. 98 (1891); *Dist. A. M. N. H.* (7) vii, p. 537 (1901).

Allied to the preceding species (*G. argentatus*), but differing in

the following characters :—Apex of head and two spots at base black ; two anterior transverse spots and two very large basal subquadrate spots to pronotum black ; scutellum with central carina red ; corium with basal margin concolorous, not red ; a round spot near each apical area of clavus and a similar discal spot to corium black ; membrane unspotted, its apical margin greyish ; two black spots on the lateral areas of each sternal segment.

Length 7 millim.

Hab. Ceylon (*Green & Lewis*).

700. **Graptostethus trisignatus**, *Dist. A. M. N. H.* (5) iii, p. 130 (1879).

Red ; rostrum, antennæ, eyes, a narrow transverse patch (divided into two in a second specimen) at base of head, two large subglobular spots at base of pronotum, scutellum, membrane, apical segment of abdomen, legs, and a spot on the lateral areas of each sternal segment black ; apical margin of membrane greyish-white ; rostrum considerably passing the posterior coxæ, the basal joint extending some little distance beyond the anterior margin of prosternum ; second joint of antennæ much longer than third.

Length 7½ to 10 millim.

Hab. Nága and North Khási Hills (*Chennell*). Burma ; Rangoon (*Fea*).

701. **Graptostethus quadrisignatus**, *Dist. A. M. N. H.* (5) iii. p. 130 (1879).

Red ; rostrum, antennæ, eyes, apex of head, anterior margin of pronotum (broadest on disk and not quite reaching lateral margins), an angulated fascia near each pronotal lateral angle, scutellum, membrane, disk of apical abdominal segment, legs, and four spots on each lateral area of sternum (two on prosternum, one on mesosternum, and one on metasternum) black ; apical margin of membrane greyish-white ; the basal joint of the rostrum only just passes the anterior margin of the prosternum ; second joint of antennæ a little longer than third.

Var. Disk of corium and central area of abdomen beneath piceous.

Length 10 to 11 millim.

Hab. North Khási Hills (*Chennell*) ; Nilgiri Hills (*Hampson*).

702. **Graptostethus dixoni**, sp. n.

Head black, the lateral margins above pale red ; pronotum pale red, with two large central black discal fasciæ, largely transversely widened anteriorly and posteriorly, and almost reaching the anterior and posterior margins ; scutellum black, its apical carina red ; corium pale brownish-red, its lateral margin and the inner claval margin pale red ; membrane black, with a long transverse

discal white spot and its apical margin greyish; sternum reddish-ochraceous, abdomen pale red; a deep shining black spot on the lateral areas of each sternal segment; antennæ, rostrum, head beneath, anterior areas of sternal segments, lateral abdominal spots, apical abdominal segment, and legs piceous; second joint of antennæ a little longer than third.

Length $6\frac{1}{2}$ millim.

Hab. Bombay; Khandála (*Dixon*).

703. **Graptostethus maculatus**, *Dall.* (Lygæus) *List Hem.* ii. p. 545 (1852); *Dist. A. M. N. H.* (7) vii, p. 537 (1901).

Reddish-ochraceous; a large spot (varying in size) between eyes, two very large rounded spots on basal area of pronotum, scutellum, a small spot beyond middle of clavus, a large central rounded spot to corium, membrane, a lateral spot on each sternal segment, and the abdominal apex black; legs, rostrum, and antennæ piceous; basal joint of rostrum and apical carination to scutellum reddish-ochraceous; second joint of antennæ a little longer than the third.

In some specimens there is, as described by Dallas, a black spot on the anterior area of the pronotum.

Length 8 millim.

Hab. "North India" (*Brit. Mus.*). Narkanda (*Atkinson*).

Genus **ASPILOCORYPHUS**.

Aspilocoryphus, *Stål, En. Hem.* iv, p. 99 (1894).

Type, *A. fasciativentris*, Stål, an African species.

Distribution. Ethiopian, Oriental, and Australasian Regions.

This genus is closely allied to *Graptostethus*, Stål, and is separated on valid but rather superficial characters. In *Graptostethus* the head is either totally or nearly red, or at least possesses a red spot, and the odoriferous orifices are red or luteous; in *Aspilocoryphus* the head is black, without any pale spot at base, and the orifices are black; the body is sericeous.

Fig. 5.—*Aspilocoryphus guttiger.*

704. **Aspilocoryphus guttiger**, *Dall.* (Lygæus) *List Hem.* ii, p. 547 (1852).

Dull testaceous; head (excluding lateral margins), basal area of pronotum attached to two large discal longitudinal fasciæ, scutellum excluding apex, a lateral spot attached to a transverse fascia on each sternal segment, obscure marginal spots, segmental margins and apex of abdomen black; legs, antennæ, and rostrum piceous; behind each sternal black spot is a smaller, darker, velvety-black spot; membrane

piceous, with an arcuated fascia near base and the apical margin white. Antennæ with the second and fourth joints longest; third a little longer than first.

Length 7 millim.

Hab. North Bengal (*Campbell, Brit. Mus.*).

705. **Aspilocoryphus mendicus,** *Fabr.* (Cimex) *Syst. Ent.* p. 720 (1775); *id.* (Cimex) *Mant.* ii, p. 300 (1787); *Stål* (Lygæus), *Hem. Fabr.* i, p. 74 (1868).

I have not seen this species; Stål has thus described it:—

Testaceous, remotely greyishly sericeous; central lobe and a large spot at base of head, antennæ, rostrum, four large spots arranged in two series to pronotum, scutellum, membrane, a large spot on each lateral area of the sternal segments, a small spot in the basal angles of all the abdominal segments, and an abbreviated apical fascia to the third, fourth, and fifth segments, the anal appendage and sixth segment, and legs black; a small shining black spot to the sternum "subbasali media laterum partium"; two small obscure spots and apical central carina to scutellum testaceous; an anterior fascia internally abbreviated, and the apical margin to membrane, white; the first joint of rostrum produced a little beyond base of head.

Length, ♀, 7 millim.

Hab. "India Orientalis. Dom. Daldorff" (*Copenhagen Mus.*).

Genus MELANOTELUS.

Melanotelus, *Reut. Rev. d'Ent.* iv, pp. 200 & 202 (1885).

Type. *M. argillaceus*, Reut., from the Mauritius.

Distribution. Southern Palæarctic, Ethiopian, Oriental, and Australasian Regions.

Dr. Reuter apparently relies on the following characters to separate this genus from *Graptostethus* and its allies:—"Hemelytra narrower than the abdomen; abdomen testaceous or sanguineous, the sixth and anal segments black; the posterior angles of the metapleuræ externally strongly produced."

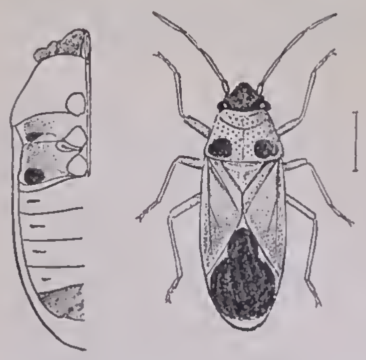

Fig. 6.—*Melanotelus bipunctatus.*

706. **Melanotelus bipunctatus,** *Dall.* (Lygæus) *List Hem.* ii, p. 547 (1852); *Reut. Rev. d'Ent.* iv, p. 203 (1885).

Dull reddish, greyishly pilose; head, a spot near each basal angle of the pronotum, membrane, a spot on lateral area of each sternal segment, and apex of abdomen black; antennæ, rostrum, and legs piceous; membrane with the apex, a basal spot, and a spot at apical margin of corium white.

Var. *a*. Scutellum with two small black discal spots.

Var. *b*. Head testaceous, its base infuscated.

Length 6 to 7 millim.

Hab. Bombay (*Coll. Dist.*). Burma; Rangoon, Palon, Karennee, Teinzo, Mandalay (*Fea*).

Genus **LYGÆOSOMA**.

Lygæosoma, *Spin. Ess.* p. 254 (1840); *Fieb.* (part.) *Eur. Hem.* p. 45 (1861); *Stål, Öfv. Vet.-Ak. Förh.* 1872, n. 7, p. 42; *Reut. Rev. d'Ent.* iv, p. 205 (1885).

Type, *L. reticulatum*, Herr.-Schaef., a Palæarctic species.

Distribution. Nearctic, Palæarctic, Ethiopian, and Oriental Regions.

The position of this genus will be best understood by a reference to the Synopsis of Genera given on p. 3. The body is sometimes very distinctly pilose and the orifices are red or luteous; the anterior area of the pronotum is usually distinctly, sparsely punctate, but sometimes too pilose for the punctuation to be clearly visible, it is also subobsoletely centrally carinate; the apex of the scutellum is laterally and prominently produced; the eyes are not separated from the anterior pronotal angles.

707. **Lygæosoma orientale**, sp. n.

Head, pronotum, scutellum, and membrane piceous; a spot at base and near apex of head, anterior and lateral margins and a central fascia to pronotum, and apical central fascia to scutellum pale reddish; corium obscure testaceous, with three pale spots in longitudinal series; body beneath pale reddish, lateral spots to sternum and femora piceous; rostrum and antennæ fuscous-brown. Body above strongly pilose, the hairs very long on lateral margins.

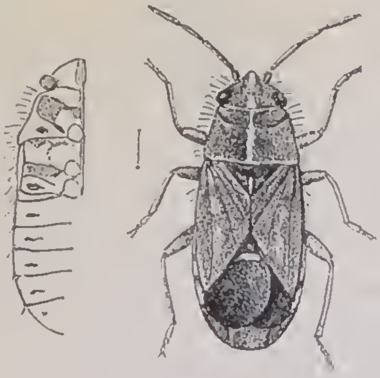

Fig. 7.—*Lygæosoma orientale.*

Length 4 millim.

Hab. Bengal; Ranchi (*Irvine*).

708. **Lygæosoma pusillum**, *Dall.* (Arocatus) *List Hem.* ii, p. 550 (1852).

"Head black; pronotum red, rather strongly punctured, with two large dark brown spots on the posterior margin; scutellum blackish, with a pale central line; corium brown, with the nervures and the posterior margin testaceous; membrane deep black, with the tip whitish; margins of the abdomen banded with brown or black and white; abdomen beneath yellow, with an abbreviated

brown band on each side of each segment, the apex black or dark brown; sternum red, punctured, with the edges of the segments testaceous; femora pale testaceous at the base, dark brown at the apex; tibiæ and tarsi brownish; rostrum black; antennæ dark brown or blackish, with a whitish ring at the apex of each of the first three joints." (*Dallas.*)

Length 4 millim.

Hab. India (*Wooley's Coll.*, *Brit. Mus.*). Burma; Karennee (*Fea*).

Genus **PYRRHOBAPHUS.**

Pyrrhobaphus, *Stål, Hem. Fabr.* i. p. 73 (1868); *id. En. Hem.* p. 99 (1874).

Type, *P. leucurus*, Fabr.

Distribution. Oriental, Malayan, and Australasian Regions.

Antennæ long, moderately robust, second and fourth joints longest; rostrum long, passing the posterior coxæ, the first joint almost extending to the anterior coxæ: pronotum with a partially obsolete central carina, basal margin straight; scutellum apically centrally carinate; metasternum posteriorly obliquely subsinuately truncate, its posterior angles acutely rounded; femora unarmed.

709. **Pyrrhobaphus leucurus**, *Fabr.* (Cimex) *Mant.* ii, p. 299 (1787); *id.* (Lygæus) *Ent. Syst.* iv, p. 154 (1794); *Dall.* (Lygæus) *List Hem.* ii, p. 535 (1852); *Stål, Hem. Fabr.* i, p. 73 (1868); *Dist. A. M. N. H.* (7) ix, p. 45 (1902).
Melamphaus rubidus, *Walk. Cat. Het.* vi, p. 14 (1873).
Var. tyrannus, *Bredd. Mitt. Nat. Mus. Hamb.* xvi, p. 173, t. ii, f. 6 (1899).

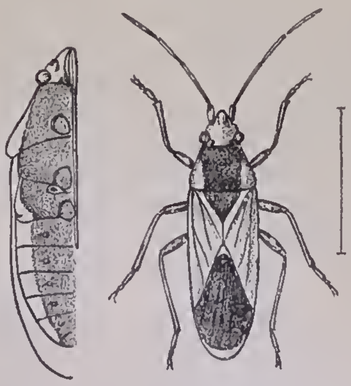

Fig. 8.—*Pyrrhobaphus leucurus.*

Black; base of first joint of antennæ, head, posterior latera areas of pronotum, and the corium dark sanguineous; basal angle and apical margin of membrane greyish white; posterior lateral areas of prosternum and metasternum, lateral areas of head beneath, and lateral abdominal margins sanguineous.

Var. Head almost or wholly black.

Length 14 to 15 millim.

Hab. Trivandrum (*Coll. Dist.*). Ceylon (*Thwaites*). — Scattered throughout the islands of the Malayan Archipelago; found in some of the Pacific Islands; common in New Hebrides (*Coll. Dist.*).

Genus AROCATUS.

Arocatus, *Spin. Ess.* p. 257 (1840); *Fieb. Eur. Hem.* pp. 45 & 167 (1861); *Stål, Öfv. Vet.-Ak. Förh.* 1872, n. 7, p. 42; *id. En. Hem.* iv, p. 99 (1874).
Tetralaccus, *Fieb. Eur. Hem.* p. 44 (1861).

Type, *A. melanocephalus*, Fabr., a Palæarctic species.

Distribution. Palæarctic, Ethiopian, Oriental, and Australasian Regions.

Posterior margins of eyes somewhat widely separated from the anterior pronotal angles; head moderately tumescent; pronotum punctate; second and fourth joints of the antennæ subequal in length, or fourth a little shorter than the second; body elongate.

A Palæarctic genus, represented in the Ethiopian, Oriental, and Australasian Regions.

710. **Arocatus pilosulus**, *Dist. Tr. E. S.* 1879, p. 123; *id. Sec. Yark. Miss., Rhynch.* p. 9, fig. 5 (1879).

Testaceous, pilose; head with the central portion black; antennæ black, pilose, second joint rather longest, third and fourth joints subequal in length; rostrum piceous; pronotum obscurely punctured, distinctly rugulose on posterior area, anterior lobe with a transverse black fascia and a similar but more obscure basal fascia; scutellum piceous, the apex red, and with two large basal foveæ; membrane piceous, opaque, its apical margin greyish; body beneath testaceous, suffused with piceous; a black lateral spot on each sternal segment; legs piceous, pilose.

Fig. 9.—*Arocatus pilosulus.*

Length 6 millim.

Hab. Punjab; Murree (*Stoliczka*).

711. **Arocatus sericans**, *Stål* (Lygæus), *Freg. Eug. Resa, Ins. Hem.* p. 240 (1859); *id. En. Hem.* iv, p. 116 (1874).

Black; margins of head (excluding extreme apex), anterior and lateral margins and a central fascia to pronotum, central fascia to scutellum, basal lateral margins to corium, connexivum, head beneath, lateral margins of sternum and abdomen, and transverse segmental suffusions to sternum and abdomen sanguineous; a piceous lateral spot on each sternal segment; body finely pilose; pronotum posteriorly distinctly punctured; membrane piceous, its apical margin pale fuliginous.

Length 7 to 8 millim.

Hab. Pondicherry (*Coll. Signoret*).—China; Japan (*Lewis*).

Genus CÆNOCORIS.

Cænocoris, *Fieb. Eur. Hem.* pp. 44 & 166 (1861); *Stål, Öfv. Vet.-Ak. Förh.* 1872, n. 7, p. 43; *id. En. Hem.* iv, p. 99 (1874).

Type, *C. nerii*, Germ.

Distribution. Palæarctic, Ethiopian, Oriental, and Australasian Regions.

Allied to the preceding genus (*Arocatus*), but differing by having the fourth joint of the antennæ distinctly longer than the second; the other distinguishing characters are of secondary importance.

In distribution *Cænocoris*, unlike *Arocatus*, is only represented in the Palæarctic Region, and is an Oriental genus, recorded also from the Ethiopian and Australasian Regions.

712. **Cænocoris nerii**, *Germ.* (Lygæus) *Faun. Ins. Europ.* p. 24 (1817); *Fieb. Eur. Hem.* p. 166 (1861); *Puton, Synopsis*, 1878, p. 13; *Dist. A. M. N. H.* (7) vii, p. 539 (1901).
Lygæus semirubes, *Walk. Cat. Het.* v, p. 58, n. 147 (1872).

Fig. 10.—*Cænocoris nerii.*

Piceous; lateral areas of head at the regions of the eyes, lateral angles of the pronotum, apex of scutellum, basal angles and inner and apical margins of corium, and body beneath sanguineous; large lateral spots to each sternal segment and a double series of discal spots to abdomen black; body, legs, and antennæ pilose; membrane black, its apical margin pale fuliginous.

Length $7\frac{1}{2}$ to 9 millim.

Hab. Sind (*Coll. Dist.*). "Hindostan" (*Brit. Mus.*)—A well-known Palæarctic species.

713. **Cænocoris marginatus**, *Thunb.* (Alydus) *Hem. rostr. Cap.* iii, p. 3 (1822); *Stål* (Tetralaceus), *Berl. ent. Zeitschr.* x, p. 163 (1866); *id. En. Hem.* iv, p. 116 (1874).
Cænocoris dudgeoni, *Kirk. Wien. ent. Zeit.* xxii, p. 17 (1903).

Sanguineous, greyishly pilose; antennæ, rostrum, a spot at base of head (sometimes occupying the whole central area), disk of pronotum, scutellum (excepting apex), clavus, and sometimes the whole of corium (excepting lateral margin), body beneath, and legs piceous; lateral margins of sternum and abdomen and sometimes transverse fasciæ to abdominal segments sanguineous; membrane violaceous-black, the apical margin pale hyaline.

Var. Legs testaceous; abdomen beneath pale sanguineous, its apical area infuscated.

Length $10\frac{1}{2}$ to 14 millim.

Hab. Kangra Valley (*Dudgeon*). Ceylon (*Green*). Tenasserim; Plapoo (*Fea*).—China (*Stockholm Mus.*).

714. **Cænocoris nicobarensis**, *Mayr, Verh. z.-b. Ges. Wien*, xv, p. 436 (1865); *id. Reise Nov., Hem.* p. 127, t. iii, fig. 30 (1866).

"Dull sanguineous: antennæ, rostrum, basal angles of scutellum, apical area of clavus, internal area of corium, abdomen (lateral sanguineous margin excepted), and legs black; membrane shining violaceous, its margins greyish white: acetabula and trochanters pale flavous; basal joint of antennæ passing apex of head; lateral margins of the pronotum distinctly sinuated at middle." (*Mayr.*)

Length 9 to 10 millim.

Hab. Nicobar Islands; Sambelong.

I have not seen this species.

Division *ORSILLARIA.*

Orsillaria, *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 43; *En. Hem.* iv, p. 98 (1874).

Hemelytra either colourless or greyish-subhyaline; apical margin of corium near apex of clavus sinuate.

The genus *Orsillus*, which is the foundation for the name of this division, is at present known only from the Palæarctic Region.

Genus **NYSIUS.**

Nysius, *Dall. List Hem.* ii, pp. 331 & 551 (1852); *Stål, En. Hem.* iv, p. 119 (1874); *Horv. Rev. d'Entom.* ix, p. 185 (1890).
Cymus, subg. Artheneis, *Flor, Rhynch. Livl.* i, p. 287 (1860).
Subg. Rhypodes, *Stål, Hem. Fabr.* i, p. 76 (1868).
Subg. Nithecus, Anorthus, *Horv. Rev. d'Ent.* ix, pp. 187 & 190 (1890).
Subg. Macroparius, Ortholomus, *Stål, Öfv. Vet.-Ak. Förh.* 1872, n. 7, p. 43.

Type, *N. zealandicus*, Dall., from New Zealand and Tasmania.

Distribution. Almost universally distributed.

Head triangular, rather broad; eyes prominent, projecting beyond the anterior angles of the pronotum; basal joint of the antennæ a little shorter than the head, second generally longer than the third; rostrum reaching or nearly reaching the posterior coxæ, basal joints not extending beyond base of head; body oblong; membrane with five veins, the two inner ones transversely united; anterior femora unarmed.

I can enumerate only three species from British India, and many more cannot be anticipated; as although the genus is widely distributed, its species also have a wide range, and in no area, beyond the Palæarctic, do they appear to be numerous, though individuals are abundant.

715. **Nysius ceylanicus**, *Motsch.* (Heterogaster) *Bull. Soc. Nat. Mosc.* 1863, p. 78.

Fig. 11.
Nysius ceylanicus.

Head, antennæ, anterior area of pronotum, and scutellum piceous; posterior area of pronotum ochraceous, coarsely brownly punctate; corium very pale ochraceous, subhyaline, the veins a little spotted, and the apical margin with three distinct, oblong, fuscous spots; membrane pale hyaline: body beneath piceous; posterior sternal segmental margins and apical discal area of abdomen ochraceous; legs ochraceous, femora spotted with fuscous, bases and apices of tibiæ and apices of tarsi fuscous.

Length 3 to 4 millim.

Hab. Sikhim; Mungphu (*Atkinson*). Bengal; Ranchi (*Irvine*). Ceylon (*Green & Lewis*).

716. **Nysius dohertyi**, sp. n.

Pale ochraceous, head and pronotum somewhat coarsely punctate, head with two central black fasciæ; antennæ with the first joint (excluding base and apex), base and apex of second joint, and the whole of third and fourth joints piceous; pronotum with four longitudinal black fasciæ, of which the two central are widest and most pronounced; scutellum blackly punctured, the basal angles, a central fascia, and apex luteous, levigate; corium uniformly very pale ochraceous, subhyaline, clavus and inner area infuscated, posterior margin with two elongate fuscous spots; membrane very pale ochraceous hyaline: head beneath and sternum coarsely blackly punctate, about basal half of abdomen black; femora finely spotted with fuscous.

Length 3 millim.

Hab. Tenasserim Valley; Myitta (*Doherty*).

717. **Nysius inconspicuus**, sp. n.

Head, pronotum, and scutellum pale reddish-ochraceous, coarsely punctate, head somewhat infuscate; pronotum with a transverse fascia near anterior margin and the lateral angles piceous; scutellum with the punctures and a basal suffusion more or less piceous; corium pale creamy-white, opaque, some spots on veins and apical margins pale fuscous; membrane pale shining hyaline: body beneath ochraceous, sternum and base of abdomen much suffused with piceous; legs ochraceous, large coarse punctures to femora and the apices to the tarsi piceous; antennæ very pale castaneous, the apical joint a little infuscate; pronotum with a central anterior carination which passes only a little beyond the transverse fascia; scutellum with a central carination which

commences about one-third from base, where it is thickest, somewhat tuberculous, and generally black.

Length 3 millim.

Hab. Bor Ghát (*Dixon*).

Species of Lygæinæ *recorded from India but not included in this volume.*

Lygæus tristriatus, Herr.-Sch. Wanz. ix, p. 196 (1853).

Lethierry and Severin in their Catalogue (t. ii, p. 157) refer to this species under the name *L. tristrirtus*, and give the habitat as "India." Herrich-Schäffer, however, gave no locality, though Stål (En. Hem. iv, p. 118) also records it among his doubtful species as from "India orientalis." The short description without dimensions renders this diagnosis of no specific value.

Lygæus pallipes, Wolff, Icon. iv, p. 147, fig. 141 (1804).

A small species of which the habitat "India orientalis" is given, but of which, like previous writers, I have no knowledge.

Nysius subcinctus, Walk. Cat. Het. v, p. 70 (1872).

Walker gave Ceylon as the locality for this species, but the type is no longer to be found in the British Museum, and under these circumstances the descriptions of this writer are ignored.

Nysius pallipennis, Walk. Cat. Het. v, p. 71 (1872).

The same remarks apply to this as to the preceding species.

Subfamily II. CYMINÆ.

This subfamily is to be primarily differentiated from the Lygæinæ by the character of the distinctly punctured hemelytra.

The subfamily Cyminæ embraces only a small number of genera and species, but we probably know but little of its true extent; the insects are small and are usually only obtained by sweeping herbage, a process hitherto little followed by tropical collectors.

Synopsis of Genera.

A. Claval suture not distinctly longer than scutellum; antennæ more than half the length of body .... NINUS, p. 19.

B. Claval suture longer than scutellum; antennæ not half the length of body .... CYMUS, p. 21.

Genus **NINUS**.

Ninus, *Stål, Freg. Eug. Resa, Ins. Hem.* p. 252 (1859); *Dist. Biol. Centr.-Amer., Rhynch.* vol. i, p. 191 (1882).

Type, *N. insignis*, Stål, from the Island of Guam.

Distribution. Neotropical and Oriental Regions; also recorded from Guam and the Seychelles.

Body elongate, subparallel; head triangular, broader than the anterior margin of the pronotum, and widest at the region of the eyes which are exserted; antennæ shorter than the body, basal joint short, not passing apex of head, second and fourth joints subequal in length; pronotum constricted near middle, broadest posteriorly, lateral angles rounded; scutellum triangular; hemelytra longer than the body, a little sinuate near base and ampliated posteriorly; membrane with longitudinal veins; legs unarmed; claval suture not distinctly longer than the scutellum.

718. **Ninus assamensis**, *Dist. A. M. N. H.* (7) viii, p. 465 (1901).

Head piceous, greyishly pubescent, especially at apex; antennæ pale chocolate-brown, finely pilose; pronotum greyish, darkly punctate; two small rounded spots near anterior margin and two very large basal spots (narrowly inwardly divided and anteriorly emarginate) chocolate-brown; between the two series of spots are two transverse black lines; scutellum greyish, darkly punctate, somewhat blackish on lateral margins; corium pale greyish ochraceous, brownly punctate, the lateral margin pale impunctate, a piceous patch at inner angle, a black spot at apex; clavus chocolate-brown; membrane pale brownish ochraceous, its discal area dark brown, reflecting the abdomen beneath: head beneath and sternum dull greyish, darkly punctate; abdomen piceous, greyishly pilose; legs and rostrum brownish ochraceous, the last with its apex piceous.

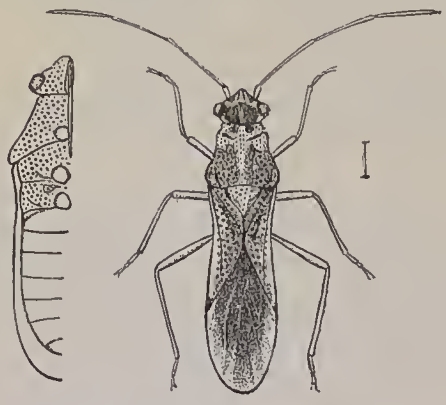

Fig. 12.—*Ninus assamensis.*

Length 4 millim.

Hab. Assam; Margherita.

719. **Ninus discessus**, *Dist. A. M. N. H.* (7) viii, p. 466 (1901).

Dull ochraceous; head, apical joint of antennæ, anterior area of pronotum, scutellum, and clavus much darker in hue; a longitudinal spot on each side of the posterior disk of pronotum piceous; apex of scutellum greyish; corium semihyaline, margins of clavus and corium ochraceous; two minute spots at claval apex, a small spot about centre of lateral margins, and the apical angle piceous; membrane pale ochraceous hyaline: head and sternum beneath brownish; abdomen and legs ochraceous; rostrum ochraceous, with its apex pitchy.

Length 4 millim.

Hab. Assam; Margherita.

Genus CYMUS.

Cymus, *Hahn, Wanz.* i, p. 76 (1831); *Fieb. Eur. Hem.* pp. 52 & 203 (1861); *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7. p. 44; *id. En. Hem.* iv, p. 125 (1874).

Type, *C. claviculus*, Fall., a Palæarctic species.

Distribution. Nearctic, Neotropical, Palæarctic, and Oriental Regions; also found in the Pacific Islands.

Body subelongate; first joint of antennæ short, not reaching apex of head; central lobe of head apically prominent; rostrum reaching or passing the intermediate coxæ, its second joint just reaching or almost reaching the anterior coxæ; claval suture longer than the scutellum.

720. **Cymus tabidus**, *Stål, En. Hem.* iv, p. 126 (1874).

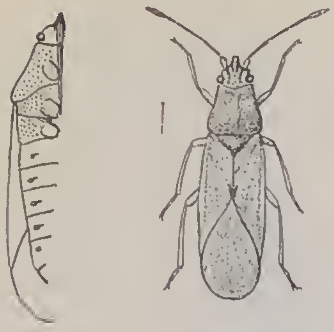

Fig. 13.—*Cymus tabidus.*

Palely ochraceous, griseous; apical angle of corium, and nearly the whole of the margin, fuscous; a pale distinct rugosity before the middle of pronotum; sulcation to head and rugosity to pronotum distinct; second joint of antennæ longer than the first and subequal in length to fourth.

Length $3\frac{1}{2}$ millim.

Hab. Bengal (*Stockholm Mus.*).

I am indebted to Dr. Yngve Sjöstedt for the opportunity of figuring the typical specimen described by Stål; I have not seen another example.

Subfamily III. BLISSINÆ.

We now approach the subfamilies of Lygæidæ in which the abdominal stigmata are not all placed on the connexivum; in the Blissinæ the stigmata of the sixth segment are alone ventral in position.

The subfamily is a small one, but of universal distribution, or at least found in all the great faunistic regions recognised in the study of geographical distribution.

Synopsis of Genera.

A. Tibiæ shorter than femora; tarsi very long, first joint longer than last two joints together .... PIRKIMERUS, p. 22.

B. Tibiæ and femora about equally long; tarsi of ordinary size, first joint not longer than last two together.

  a. Intermediate coxæ widely separated .... BOCHRUS, p. 23.

b. Intermediate coxæ moderately separated.
  a. Posterior pronotal angles angulately produced backward.............. CAVELERIUS, p. 23.
  b. Posterior pronotal angles not angulately produced backward.
    a'. Head not spined anteriorly.
      *a*². Anterior femora incrassated and spined beneath .... MACROPES, p. 24.
      *b*². Anterior femora not incrassated and seldom spinous.
        *a*³. Apical margin of corium straight. ISCHNODEMUS, p. 27.
        *b*³. Apical margin of corium sinuate near apex of clavus .... BLISSUS, p. 28.
    b'. Head spined anteriorly .... IPHICRATES, p. 27.

Genus **PIRKIMERUS**, nov.

Type, *P. sesquipedalis*, Dist.

Distribution. Burma, Tenasserim.

Tibiæ shorter than femora; anterior and intermediate femora moderately incrassated, posterior femora strongly incrassated and spined beneath; tarsi long, first joint of anterior and intermediate tarsi a little longer, of posterior tarsi much longer than the last two joints; body elongate, membrane not reaching abdominal apex; antennæ short, robust, first and second joints a little nodulose at apices; first joint of rostrum not quite reaching base of head, which has its apex prominent and moderately produced; pronotum longer than broad, convexly narrowing anteriorly, its posterior margin concavely sinuate; corium and membrane almost equal in length, membrane with five longitudinal veins.

721. **Pirkimerus sesquipedalis**, sp. n.

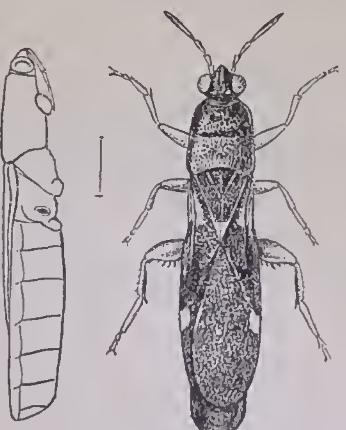

Fig. 14.—*Pirkimerus sesquipedalis.*

Piceous or very dark castaneous; antennæ and legs ochraceous; apex of antennæ infuscated; apex of clavus, a marginal spot to corium before middle, and a marginal spot to membrane creamy-white or very pale luteous; first and second joints of antennæ about subequal in length; posterior area of pronotum coarsely punctate; posterior femora strongly spined beneath, the posterior tibiæ strongly marginally setose, the tarsi marginally pilose; membrane reaching the base of the apical abdominal segment.

Length 6 to $6\frac{1}{2}$ millim.

Hab. Burma; Karennee (*Fea*). Tenasserim; Thagata (*Fea*).

Genus BOCHRUS.

Bochrus, *Stål, Stett. ent. Zeit.* xxii, p. 145 (1861); *id. En. Hem.* iv. p. 129 (1874).

Type, *B. pœcilopterus*, Stål, from Java.

Distribution. Oriental Region.

Body oblong, very much flattened; head small, in front of eyes triangularly produced, rostrum extending to the middle of the mesosternum, first joint shorter than the head; antennæ short, first joint incrassated, slightly passing the apex of head; pronotum broad, the lateral margins rounded, posterior margin nearly straight, transversely constricted near middle; scutellum triangular; hemelytra complete but shorter than the abdomen; posterior femora strongly incrassated, compressed, rounded externally, finely spined on apical area beneath.

722. **Bochrus foveatus**, *Dist. A. M. N. H.* (5) iii, p. 131 (1879).

Black; apical half of clavus with a luteous discal streak; corium with a somewhat broad fascia extending from base along the whole length of inner margin, and the costal margin narrowly luteous; membrane luteous, with a very large discal fuscous spot; rostrum, coxæ, and tarsi castaneous; antennæ pilose, second, third, and fourth joints subequal in length, basal joint and apex of central lobe of head somewhat castaneous; pronotum moderately coarsely punctate, with two large discal foveæ, in front of which are three small rounded and punctured impressions, and a large fovea on each lateral margin.

Fig. 15.—*Bochrus foveatus.*

Length 10; greatest width 4 millim.

Hab. Assam; Gáro Hills (*Chennell*), Margherita (*Coll. Dist.*). Burma; Karennee (*Fea*).

Genus CAVELERIUS.

Cavelerius, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 44.

Type, *C. illustris*, Dist.

Distribution. Burma.

Allied to *Macropes*, differing principally by the profoundly, concavely excavated posterior margin of the pronotum in front of the scutellum, the posterior pronotal angles being produced over the bases of the corium and clavus, their apices broadly oblique and extending beyond margins of corium; basal and apical joints of antennæ distinctly thickened, apical joint longest; membrane not quite reaching apex of abdomen.

723. **Cavelerius illustris**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 44.

Fig. 16.—*Cavelerius illustris.*

Head, pronotum, scutellum, abdomen above, body beneath, and antennæ black; corium dull pale luteous, apical angular areas piceous; membrane piceous, basal angle, a spot near apex of corium, and the apex, or apical margin, pale dull luteous; rostrum, legs, and basal joint of antennæ ochraceous; head and anterior lobe of pronotum shining black; body sparingly finely pilose above, much more strongly pilose beneath; rostrum just passing the anterior coxæ, its base piceous, second joint slightly longer than third.

Length 6 millim.

Hab. Upper Burma; Taunggyi, 5000 feet (*Thompson*).

Genus MACROPES.

Macropes, *Motsch. Et. Ent.* viii, p. 108 (1859).

Type, *M. spinimanus*, Motsch.

Distribution. Oriental, Ethiopian, and Australasian Regions.

Motschulsky relies on the following characters for the foundation of this genus, and to separate it from *Ischnodemus*:—Anterior femora denticulated and spined, the tibiæ terminated by a dentate dilatation, the apical joint of the antennæ claviform and longer than the other joints.

a. *Hemelytra scarcely half the length of abdomen.*

724. **Macropes spinimanus**, *Motsch. Et. Ent.* viii, p. 108 (1859); *id. Bull. Soc. Nat. Mosc.* 1863, p. 82, pl. ii, f. 19; *Dist. A. M. N. H.* (7) viii, p. 466 (1901).
Ischnodemus centralis, *Walk. Cat. Het.* v, p. 132 (1872).

Black; basal joint of antennæ and the legs reddish-ochraceous; corium very pale ochraceous, clavus piceous, its margins narrowly testaceous, apical margin of corium somewhat broadly piceous; membrane pale hyaline, with a more or less well-developed central fuscous spot. Hemelytra barely half the length of abdomen; anterior lobe of pronotum distinctly centrally sulcate, posterior lobe finely granulate, its posterior margin a little concavely sinuate in front of scutellum.

Anterior femora finely spined beneath.

Length $5\frac{1}{2}$ to 6 millim.

Hab. Ceylon (*Green*).

b. *Membrane reaching the fourth, but not the fifth abdominal segment.*

725. **Macropes dilutus**, *Dist. A. M. N. H.* (7) viii, p. 467 (1901).

Fig. 17.
Macropes dilutus.

Head, pronotum, sternum, and femora very dark castaneous; autenuæ, tibiæ, and abdomen above and beneath pale castaneous; corium pale creamy-white; base of scutellum, claval margins, apex of corium, and the membrane very dark castaneous; membrane with the inner angle, a marginal spot, and the apex creamy-white; tarsi and antennæ ochraceous.

Pronotum with a distinct, central, transverse impressiou, the anterior lobe with the disk somewhat flatly gibbous, its posterior margin moderately concave; apex of membrane extending beyond the fourth abdominal segment.

Length 7 millim.

Hab. "North India" (*Coll. Dist.*). Burma; Bhamo (*Fea*).

726. **Macropes excavatus**, *Dist. A. M. N. H.* (7) viii, p. 467 (1901).

Head, pronotum, scutellum, abdomen above, and body beneath black; legs and antennæ ochraceous; corium pale ochraceous, with the claval margins and venation somewhat darker; membrane piceous, basal angle, a spot on each lateral margin, and the apex creamy-white. Membrane just passing the fourth abdominal segment.

Length 6 millim.

Hab. Assam; Shillong.

c. *Membrane reaching the fifth abdominal segment.*

727. **Macropes punctatus**, *Walk.* (Ischnodemus) *Cat. Het.* v, p. 132 (1872); *Dist. A. M. N. H.* (7) viii, p. 467 (1901).

Black; tarsi castaneous or piceous; hemelytra stramineous; veins to both corium and membrane, and a large spot occupying the posterior disk of membrane, piceous; posterior margin of pronotum, rostrum, coxæ, and abdomen above and beneath castaneous. Membrane extending to the fifth abdominal segment; anterior lobe of pronotum obscurely centrally sulcate, posterior lobe with its anterior disk finely granulate, its posterior margin sinuate, its posterior angles a little lobate.

Length 10 millim.

Hab. "North India" (*Boyes, Brit. Mus.*).

728. **Macropes præcerptus**, sp. n.

Black; tarsi brownish-ochraceous; apical fascia to clavus, a marginal claval fascia, a subclaval marginal fascia on corium, widened posteriorly, apical angle of corium, basal angle, a discal and marginal spot to membrane, creamy-white; membrane not passing the fifth abdominal segment; anterior lobe of pronotum centrally sulcate, posterior lobe broadly transversely punctate anteriorly, posterior margin concavely sinuate; scutellum with a fine central carination; basal area of membrane piceous, opaque, apical area more brownish-piceous; anterior femora incrassated and finely spined beneath.

Length $6\frac{1}{2}$ to 7 millim.

Hab. Burma; Karennee (*Fea*).

729. **Macropes tinctus**, sp. n.

Black; hemelytra creamy-white; apical angle of corium and a large discal irregularly-shaped spot to membrane piceous; legs ochraceous; antennæ piceous, first joint and basal half of second joint luteous; eyes and extreme apex of head ochraceous; head and anterior pronotal lobe shining black, punctate, posterior lobe opaque black and coarsely punctate; membrane not passing the fifth abdominal segment; lateral margins of the abdomen rather longly pilose; abdomen above and beneath shortly greyishly pilose.

Length 5 millim.

Hab. Tenasserim.

730. **Macropes subauratus**, sp. n.

Head, antennæ, pronotum, scutellum, and sternum black; basal joint of antennæ, apex of head, posterior margin of pronotum, corium, abdomen, rostrum, and legs ochraceous; membrane pale greyish-brown. Membrane reaching the base of the apical abdominal segment; anterior lobe of the pronotum centrally sulcate, much longer than posterior lobe, transverse constriction broad; anterior femora incrassated and spined beneath.

Length $5\frac{1}{2}$ millim.

Hab. Burma; Karennee.

Species unknown to the writer by either specimen or figure.

731. **Macropes dentipes**, *Motsch. Et. Ent.* viii, p. 108 (1859).

I have not seen this species, which Motschulsky describes as differing from *M. spinimanus* only by being a little smaller and narrower in shape, by the hemelytra being black posteriorly without a white margin, and by the femora and tibiæ being for their greater part of a darker brown.

No exact dimension is given.

Hab. Ceylon.

Genus ISCHNODEMUS.

Ischnodemus, *Fieb. in Weit. Beitr.* 1836, p. 337; *id. Europ. Hem.* pp. 44 & 163 (1861); *Stål, En. Hem.* iv, p. 129 (1874).
Micropus, *Spin. Ess.* p. 218 (1840); *Sign.* (part.) *Ann. Soc. Ent. Fr.* 1857, p. 24.
Blissus (part.) *Stål, Hem. Afr.* ii, p. 122 (1865).

Type, *I. sabuleti*, Fall., a Palæarctic species.

Distribution. Almost universally distributed.

Principally differs from *Macropes* by the unarmed and more slender femora, the anterior femora being rarely very finely spinous, the body is more slender and elongate, and the apical margin of the corium is straight.

732. **Ischnodemus noctulus**, *Dist. A. M. N. H.* (7) viii, p. 468 (1901).

Fig. 18.
Ischnodemus noctulus.

Head, antennæ, pronotum, scutellum, membrane, and body beneath black; legs piceous, apices of femora, the intermediate and posterior tibiæ (excluding bases), and the tarsi ochraceous; corium piceous, its margins and an obscure spot at inner angle pale brownish-grey; membrane with a waved fascia near base and a subapical spot brownish-grey; antennæ with the second joint a little longer than the third, fourth long and moderately clavate: body finely and obscurely pilose above, much more distinctly so beneath.

Length $5\frac{1}{2}$ millim.

Hab. Ceylon (*Lewis & Green*).

Injurious to foliage of Mysore Cardamon plant. The irritation caused by the punctures of the insects causes the leaves to roll up longitudinally, under which cover the bugs live and breed. (*Green.*)

Genus IPHICRATES, nov.

Type, *I. spinicaput*, Scott, a Japanese species.

Distribution. Ceylon, Japan.

Allied to *Ischnodemus*, but differing by having the head spined on each side in front of eyes, head rather large, the lateral lobes spinously produced a little upwardly and in front of central lobe, their apices well separated; in the male there is also a long apical bifurcating process, absent in the female, in which sex the lateral lobes are less upwardly spinous.

733. **Iphicrates subauratus**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 44.

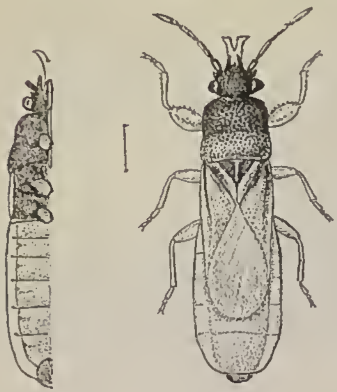

Fig. 19.
Iphicrates subauratus, ♂.

Ochraceous; head, anterior lobe of pronotum, scutellum (excluding apex), and sternum black; anterior process to head in male, rostrum, posterior angles to prosternum, lateral margins of meso- and metasterna, luteous; antennæ piceous or very dark castaneous; anterior lobe of pronotum sparingly, posterior lobe thickly and coarsely punctate; membrane reaching the penultimate abdominal segment; anterior femora thickened and spined beneath; antennæ with the first and third and the second and fourth joints subequal in length.

Length 5 to $5\frac{1}{2}$ millim.

Hab. Ceylon; Pundaluoya (*Green*).

Genus **BLISSUS**.

Blissus, *Klug, Symb. Phys.* v, pl. xliii, f. 10 (1845); *Burm. Handb.* ii, 1, p. 290 (1835); *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 45.

Type, *B. hirtulus*, Klug, a southern Palæarctic species.

Distribution. Palæarctic, Nearctic, Neotropical, Ethiopian, and Oriental Regions.

Body less elongate and more oval than in the preceding genera; apical margin of the corium sinuate near the apex of the clavus.

734. **Blissus gibbus**, *Fabr.* (Acanthia) *Ent. Syst.* iv, p. 75 (1794); *id.* (Coreus) *Syst. Rhyng.* p. 202 (1803); *Stål, Hem. Fabr.* i, p. 69 (1868).

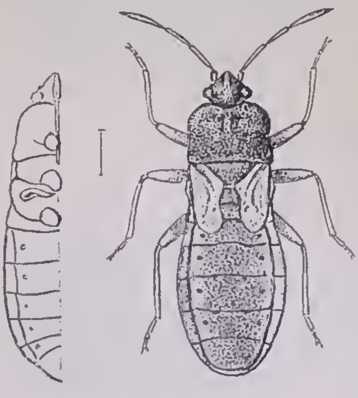

Fig. 20.—*Blissus gibbus.*
Immature form.

Black; corium very pale ochraceous, with a large black spot at apical angles; membrane greyish-white; antennæ and legs piceous, tibiæ and tarsi and the apices of femora ochraceous; posterior lobe of pronotum coarsely punctate. Membrane in fully-developed specimens about reaching the apex of the abdomen.

Length $4\frac{1}{2}$ millim.

Hab. Bombay; Bor Ghát (*Dixon*). Cawnpore.

We have here figured the immature form, because it is in that condition a more destructive insect. In recent years the late

Mr. L. de Nicéville sent me, for identification, a number of not fully-developed specimens which were then infesting and doing much damage to sugar-canes at Cawnpore.

Subfamily IV. GEOCORINÆ.

The broad head, recurved from in front of eyes to apex, gives the species forming this subfamily a very distinctive and unmistakable appearance. The subfamily contains but few genera—*Geocoris*, the only one found in British India, being its dominant representative. The Geocorinæ are almost universally distributed.

Genus **GEOCORIS**.

Geocoris, *Fallén, Spec. Hem. disp.* p. 10 (1814); *Stål, Hem. Afr.* ii, p. 143 (1865); *id. Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 46.
Salda, *Latr., Cuv. Règne Anim.* v. p. 198 (1829); *Spin. Ess.* p. 227 (1840).
Ophthalmicus, *Schill.* (part.) *in Beitr. zur Ent.* i, p. 62 (1829); *Fieb. Eur. Hem.* pp. 46 & 174 (1861).
Subg. Piocoris, Mallocoris, *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, pp. 45, 46.

Type, *G. megacephalus*, Rossi, a Palæarctic and Ethiopian species.
Distribution. Almost universally distributed.

Body ovate, depressed; head broad, with eyes broader than anterior margin of pronotum, in front of eyes somewhat triangularly prominent; eyes large, very prominent, oblique; rostrum reaching the posterior coxæ, first joint about reaching base of head; antennæ much shorter than the body, the basal joint shortest; pronotum transverse, quadrangular, a little narrowed anteriorly; scutellum large, triangular; hemelytra complete; legs moderate, femora unarmed.

A. *Lateral margins of corium moderately straight, not convex.*

a. *Head luteous.*

735. **Geocoris tricolor**, *Fabr.* (Cimex) *Ent. Syst. Suppl.* p. 536, 176–7 (1798); *id.* (Lygæus) *Syst. Rhyng.* p. 238 (1805); *Stål, Hem. Fabr.* i, p. 76 (1868); *Dist. A. M. N. H.* (7) viii, p. 469 (1901).
Ophthalmicus ochropterus, *Fieb. Ent. Monogr.* p. 117, pl. ix, f. 26 (1844); *id. Wien. ent. Mon.* v, p. 278 (1861).
Geocoris marginicollis, *Dohrn, Stett. ent. Zeit.* xxi, p. 405 (1860).
Ophthalmicus cinerascens, *Walk. Cat. Het.* v, p. 138 (1872).

Head luteous; eyes castaneous; pronotum and scutellum black; lateral margins of pronotum and the corium ochraceous, the last sometimes greyish-ochraceous; membrane semihyaline,

reflecting the dark abdomen beneath: body beneath black; head beneath, coxæ, legs, and extreme lateral margins of sternum and abdomen ochraceous; antennæ black, first joint (excluding apex) and the apical joint ochraceous; rostrum ochraceous; first joint of rostrum a little longer than the second: above coarsely punctate, head and disk of corium impunctate.

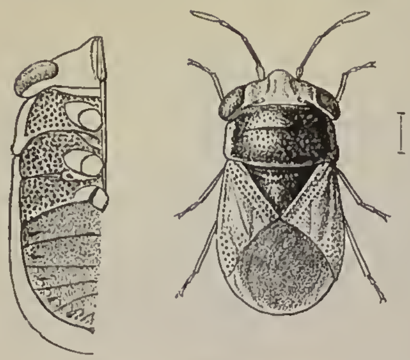

Fig. 21.—*Geocoris tricolor.*

Length $3\frac{1}{2}$ to 4 millim.

Hab. Calcutta. Bangalore (*Cameron*). Bor Ghát (*Dixon*). Ceylon (*Lewis*). Burma; Bhamo (*Fea*).

736. **Geocoris lituratus,** *Fieb.* (Ophthalmicus) *Ent. Monogr.* p. 116, pl. ix, f. 25 (1844); *id.* (Ophthalmicus) *Wien. ent. Mon.* v, p. 279 (1861).

Head luteous, eyes castaneous; pronotum black, the anterior and lateral margins luteous; scutellum black; corium luteous, apical half of clavus and the apical area of corium blackish; membrane fuscous, the basal angle ochraceous: body beneath and legs luteous; antennæ fuscous, the basal area of first joint luteous; rostrum luteous; first joint of rostrum longer than second: body above punctate; head, anterior area of pronotum, and disk of corium impunctate; clavus longitudinally punctate.

Var. Pronotum ochraceous, with the central area blackly punctate; scutellum ochraceous, with the lateral areas blackly punctate.

Length 4 millim.

Hab. Calcutta. Ceylon (*Lewis*).

737. **Geocoris splendidus,** sp. n.

Head luteous; eyes castaneous; pronotum and scutellum black; corium dull greyish, with a large, subovate, marginal black spot on apical area, lateral margin very narrowly of the same colour; membrane pale hyaline, with the disk fuscous: body beneath black; head beneath, coxæ, and legs luteous; membrane fuscous, basal joint luteous; rostrum luteous, its basal joint longer than the second: coarsely punctate above, the head and disk of corium impunctate; clavus longitudinally punctate.

Length $3\frac{1}{2}$ to 4 millim.

Hab. Burma; Karennee (*Fea*).—Siamese Malay States.

738. **Geocoris pulvisculatus,** sp. n.

Luteous; the pronotum, scutellum, and corium (excluding disk) coarsely darkly punctate; eyes pale castaneous; antennæ

with the second and third joints black; rostrum luteous, first joint longer than the second; membrane pale semihyaline: body beneath imperfectly seen, owing to the unique example described being in a carded condition.

Length $3\frac{1}{2}$ millim.

Hab. Burma; Karennee (*Fea*).*

b. *Head red, concolorous with body.*

739. **Geocoris rutilus**, sp. n.

Body above and beneath with legs bright coral-red; apical angle and extreme lateral margin of corium black; membrane pale fuscous, the basal area blackish; antennæ mutilated in specimen described; rostrum with the first joint longer than the second: body above sparingly punctate, head and disk of corium impunctate.

Length $4\frac{1}{2}$ millim.

Hab. Burma; Rangoon (*Coll. Dist.*).

c. *Head more or less black.*

740. **Geocoris jucundus**, *Fieb.* (Ophthalmicus) *Wien. ent. Mon.* v, p. 270 (1861).

Head and pronotum black; a marginal spot on each side of head in front of eyes, a small central spot on the anterior and posterior margins, and the lateral angular areas of the pronotum pale ochraceous; scutellum black; corium pale ochraceous, on apical margin near inner angle a small brown spot; membrane obscure ochraceous, semihyaline: body beneath black; anterior margin of prosternum and acetabula greyish-white; coxæ and legs luteous; rostrum ochraceous, bases of first and third joints and the apex black, first joint longer than second; antennæ fuscous, first joint, apex of third, and the whole of fourth joint luteous; body above coarsely punctate; disk of corium impunctate.

Length 3 millim.

Hab. Bengal; Ranchi (*Irvine*), Calcutta. Burma; Karennee (*Fea*).

B. *Lateral margins of corium distinctly convex, attenuated posteriorly.*

741. **Geocoris ornatus**, *Fieb.* (Ophthalmicus) *Wien. ent. Mon.* v, p. 275 (1861).

Ophthalmicus discifer, *Walk. Cat. Het.* v, p. 139 (1872).

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* Under the vague habitat of "Ostindien," Fieber has described and figured a species as *Ophthalmicus plagiatus* (Ent. Monogr. p. 119, pl. x, f. 3, 1844). I have not seen an example from British India, and therefore do not include it in the enumeration.

Geocoris walkeri, *Leth. & Sev. Cat. Gen. Hém.* ii, p. 173 (1894).

Black; head (excluding base), anterior and posterior margins of pronotum, clavus, and inner and lateral margins of corium luteous; body beneath black; head beneath, anterior margin of sternum, coxæ, and legs luteous; antennæ black, basal joint (excluding extreme apex) luteous, apical joint brownish ochraceous; rostrum luteous, first joint black at base and longer than second; above coarsely punctate; anterior and posterior margins of pronotum, inner margin of clavus, inner and outer margins of corium impunctate; abdomen elongately ovate.

Length 3 millim.

Hab. Calcutta. Ceylon (*Thwaites*).

Subfamily V. COLOBATHRISTINÆ.

This small subfamily differs from the other Lygæidæ in having the abdomen contracted at base and the second and third segments very long.

The subfamily Colobathristinæ contains only three genera, according to our present knowledge: two confined to the Oriental (Indo-Malayan) Region, the other being both Oriental and also Neotropical in distribution.

Synopsis of Genera.

A. Antennæ longer than body, apical joint short, fusiform; scutellum not longer than broad . . MALCUS, p. 32.

B. Antennæ shorter than body, apical joint slender, not shorter than preceding joint; scutellum longer than broad . . . . ARTEMIDORUS, p. 33.

Genus **MALCUS.**

Malcus, *Stål, Freg. Eug. Resa, Ins. Hem.* p. 241 (1859).

Type, *M. flavidipes*, Stål.

Distribution. Oriental Region.

Body oblong, stoutly formed; head transverse as seen from above, being strongly deflected in front of eyes; antennæ a little longer than the body, first joint very stout, the second a little longer than the first, third considerably longer than the second, fourth short and fusiform; rostrum reaching the intermediate coxæ; pronotum almost equally long and broad, anteriorly and posteriorly subtruncated, lateral margins a little sinuate; scutellum broadly triangular; hemelytra as long as the abdomen, membrane large with fine veins; legs slender, unarmed; abdomen with the apices of the last three segments marginally produced.

742. **Malcus flavidipes**, *Stål, Freg. Eug. Resa, Ins. Hem.* p. 242, pl. iii, f. 2 (1859).

Fig. 22.—*Malcus flavidipes.*

Castaneous; apical angles of corium fuscous; membrane pale fuliginous, the veins and some irregular spots fuscous; legs stramineous: body beneath fuscous or castaneous; antennæ castaneous, the second and third joints stramineous; corium coarsely punctate, pronotum granulate.

Length $3\frac{1}{2}$ to 4 millim.

Hab. Assam; Margherita. Burma; Karennee (*Fea*). Tenasserim; Myitta (*Doherty*).—Java.

743. **Malcus scutellatus**, *Dist. A. M. N. H.* (7) viii, p. 472 (1901).

Ochraceous, coarsely brownly punctate, the corium paler and almost impunctate on basal disk and lateral margin; scutellum brownish, with a prominent, pale, ochraceous, levigate spot near each basal angle; membrane greyish, clouded with fuscous and with the veins fuscous; legs and antennæ very pale ochraceous, the last with the basal joint castaneous and the apical joint fuscous.

A species to be differentiated from *M. flavidipes*, Stål, by the prominent ochraceous angular spots to the scutellum; the pronotum is also more tumid posteriorly.

Length 3 to 4 millim.

Hab. Assam; Margherita, Shillong. Sikhim; Kurseong. Ceylon (*Lewis*).

Genus **ARTEMIDORUS.**

Artemidorus, *Dist. A. M. N. H.* (7) xi. p. 73 (1903).

Type, *A. pressus*, Dist.

Distribution. Oriental Region.

Elongate; abdomen concavely narrowed near middle. Head broad, convexly narrowed in front of eyes, central lobe prominent and slightly produced; antennæ with the first joint almost as long as the head and moderately incrassate at apex, second joint slightly longer than third or fourth, all longer than first; rostrum just passing the anterior coxæ, first joint shorter than head, second longest, ocelli close to posterior margin, nearer to eyes than to each other; pronotum elongate, strongly laterally sinuate, transverse constriction distinct, anterior lobe not prominently globose, posterior lobe deflected anteriorly, lateral angles rounded, their posterior margins slightly lobately produced; scutellum

large, with a discal carination; corium about half the length of abdomen and concavely constricted at middle; membrane not quite reaching apex of abdomen; legs somewhat long, unarmed, posterior femora with their apices incrassated; legs pilose, posterior tibiæ setose.

744. **Artemidorus pressus**, *Dist. A. M. N. H.* (7) xi, p. 74 (1903).

Pale ochraceous; head, anterior lobe of pronotum, lateral margins of posterior lobe, base of scutellum, body beneath, and almost apical halves of posterior femora black; apex of scutellum luteous, levigate, the central carination castaneous; posterior lobe of pronotum, subapical area of scutellum, and corium darkly punctate, the outer areas of corium impunctate, their apices black;

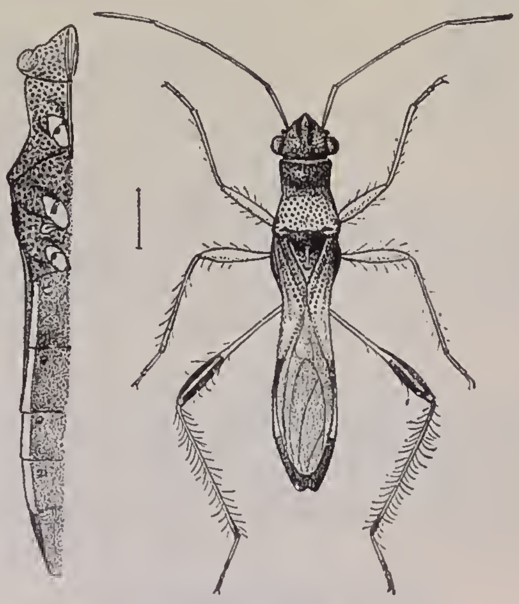

Fig. 23.—*Artemidorus pressus.*

acetabula, coxæ, linear marginal spots to abdomen (above and beneath) luteous; apex of abdomen castaneous. Body, antennæ, and legs finely pilose, posterior tibiæ setose; head, pronotum, and sternum thickly punctate.

Length $5\frac{1}{2}$ millim.

Hab. Calcutta. Ceylon (*Lewis*); Peradeniya (*Green*). Burma; Palon (*Fea*).

Subfamily VI. HETEROGASTRINÆ.

The basal cells to the membrane will, as shown in the synopsis of subfamilies (*ante*, p. 2), render this subfamily easily recognisable.

Less than a dozen genera are at present included in the Heterogastrinæ, and these are distributed among all the great zoological regions, but there can be little doubt that our present knowledge of the subfamily is somewhat fragmentary.

Synopsis of Genera.

A. Eyes stylated; corium shorter than membrane .... CHAULIOPS, p. 35.
B. Eyes not stylated; corium longer than membrane.
  a. Head broad; as seen from above, broader than long .... BOCCHARIS, p. 36.
  b. Head as long as broad or longer, much narrowed anteriorly.
    a. Posterior margin of pronotum truncate, straight .... SADOLETUS, p. 37.
    b. Posterior margin of pronotum concavely excavate.
      a'. Basal joint of rostrum extending beyond base of head; body elongately subovate .... DINOMACHUS, p. 37.
      b'. Basal joint of rostrum shorter than head; body narrowly elongate ...... HYGINUS, p. 38.

Genus CHAULIOPS.

Chauliops, *Scott, A. M. N. H.* (4) xiv, p. 427 (1874).

Type, *C. fallax*, Scott.

Distribution. Ceylon, Japan.

Head broad, eyes stylated and extending beyond the anterior margin of the pronotum, a stout spine beneath each eye near base; antennæ with the first and fourth joints incrassated, first joint passing apex of head which is deflected from in front of eyes; rostrum reaching the posterior coxæ; pronotum large, nearly twice as broad posteriorly as anteriorly, posterior margin nearly straight in front of scutellum, the lateral angles rounded and forming a marginal callosity; scutellum large, triangular, centrally sulcate; corium about half as long as abdomen, its lateral margin sinuate, its apex lobately rounded; membrane very large, with five veins; sternum with a rostral channel; femora moderately incrassated, with a short spine beneath a little beyond middle.

The position of this very peculiar genus is rather difficult to decide. Its founder, Scott, described it as reminding one "of a minute species of *Nysius* with the eyes of *Henestaris*, between which genera it apparently stands." Uhler has since located it in the Heterogastrinæ, and I have followed him in that decision.

745. **Chauliops fallax**, *Scott, A. M. N. H.* (4) xiv, p. 428 (1874); *Uhler, Proc. U.S. N. H. Mus.* xix, p. 264 (1896).

Pale brownish or brownish luteous; pronotum somewhat thickly and deeply punctured; scutellum black, with a short white streak at the basal angles; corium pale brownish, greyish at the base, and with a small black discal spot, posterior margin broadly castaneous; antennæ pale luteous, first joint and apex of the fourth castaneous; rostrum ochraceous, its apex black; pronotum with a pale central longitudinal line, and with a castaneous transverse fascia near anterior margin; femora castaneous, their bases luteous, tibiæ and tarsi luteous, bases of the tibiæ dark castaneous.

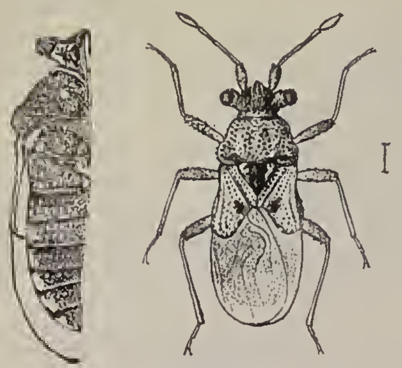
Fig. 24.—*Chauliops fallax.*

Length $2\frac{1}{2}$ to 3 millim.

Hab. Ceylon; Peradeniya (*Green*).—Japan (*Lewis*).

In all stages this species punctures the foliage of a small bean (*Dolichos unguiculata*) and completely checks the growth of the plant. (*E. E. Green.*)

Genus **BOCCHARIS**, nov.

Type, *B. significatus*, Dist.

Distribution. Burma.

Head broad, as seen from above much broader than long, eyes prominent; rostrum long, reaching the posterior coxæ, first joint almost extending to base of head; basal joint of antennæ not quite reaching apex of head, second and fourth joints subequal, third shorter; pronotum subquadrate, a little nodulose at lateral angles, anterior angles detached from but nearly parallel with outer margins of eyes, obscurely transversely constricted, posterior lobe very distinctly centrally sulcate; scutellum centrally carinate; corium much longer than membrane, which reaches the abdominal apex; femora only moderately incrassated.

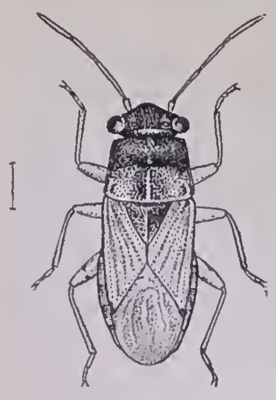
Fig. 25.—*Boccharis significatus.*

746. **Boccharis significatus**, sp. n.

Head, anterior lobe of pronotum, and scutellum black; posterior pronotal lobe, apex of scutellum, and corium ochraceous, the first darkly punctate, the punctures forming two central spots, the corium longitudinally punctate; membrane pale hyaline;

connexivum ochraceous spotted with piceous: body beneath piceous, greyishly pilose; legs ochraceous, posterior femora with two dark spots a little before apices; antennæ ochraceous, the third and fourth joints a little infuscated.

Length 5 millim.

Hab. Burma; Bhamo (*Fea*).

Genus **SADOLETUS**, nov.

Type, *S. validus*, Dist.

Distribution. Oriental Region.

Body robust, subelongate; head short, triangular, eyes touching the anterior margin of the pronotum; antennæ with the basal joint just passing the apex of the head, fourth joint slightly longest; ocelli placed a little before eyes and near posterior margin; rostrum about reaching the posterior coxæ, first joint as long as head; pronotum transversely constricted, moderately widened posteriorly, posterior margin straight; scutellum large, subtriangular, moderately tumid at base; corium extending to about two-thirds the length of the abdomen; membrane passing the abdominal apex.

747. **Sadoletus validus**, sp. n.

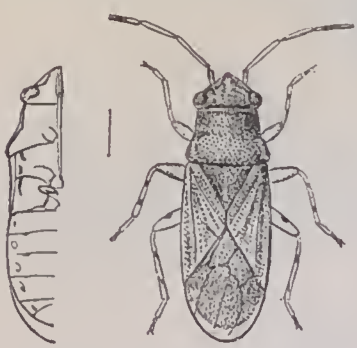

Fig. 26.—*Sadoletus validus.*

Olivaceous; posterior lobe of pronotum, apex of scutellum, and abdomen brownish-olivaceous; legs and antennæ stramineous, third and fourth antennal joints somewhat infuscated, tibiæ biannulated with pale brownish, and apices of tarsi the same colour; posterior femora with a fuscous spot on upper surface a little beyond middle; head, anterior lobe of pronotum, base of scutellum, and sternum thickly and finely pilose; posterior lobe of pronotum and apex of scutellum thickly punctate, corium linearly and more sparingly punctate; membrane pale hyaline.

Length $4\frac{1}{2}$ millim.

Hab. Ceylon; Peradeniya (*Green*). Mergui.

Genus **DINOMACHUS**.

Dinomachus, *Dist. A. M. N. H.* (7) viii, p. 473 (1901).

Type, *D. marshalli*, Dist., an African species.

Distribution. Ethiopian and Oriental Regions.

Body elongate, subovate; head broad, robust, pointed anteriorly; first joint of antennæ reaching or passing apex of head; basal joint of rostrum extending beyond base of head; pronotum distinctly centrally transversely impressed, anterior lobe a little globose,

posterior lobe widened to lateral angles; posterior margin concavely sinuate; scutellum large, subtriangular; corium longer than membrane; femora not prominently incrassated.

Allied to the Palæarctic genus *Heterogaster*, from which it differs by having the central lobe of the head longer than, and projecting beyond, the lateral lobes; the head and body are also more elongate.

748. **Dinomachus sikhimensis**, sp. n.

Ochraceous, thickly blackly and coarsely punctate; much suffused with black, especially on head, pronotum, scutellum, and the apical area of the corium, where there is an irregular transverse fascia followed by a rounded spot; membrane pale

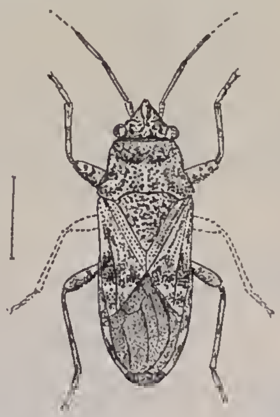

Fig. 27.—*Dinomachus sikhimensis.*

bronzy: body beneath greyishly pilose; legs ochraceous; apices of femora and annulations to tibiæ black; connexivum black, spotted with ochraceous; antennæ ochraceous, pilose.

Length $8\frac{1}{2}$ millim.

Hab. Sikhim.

Genus HYGINUS.

Hyginus, *Stål, Freg. Eug. Resa, Ins. Hem.* p. 241 (1859); *id. En. Hem.* iv, p. 168 (1874).

Type, *H. kinbergi*, Stål, from the Philippines.

Distribution. Oriental Region.

Elongate; head broad, narrowed in front of eyes, central lobe prominent, ocelli situate near base and nearer to eyes than to each other; eyes prominent; antennæ slender, finely pilose, second joint longest; rostrum reaching the intermediate coxæ, first joint shorter than the head; pronotum long, posterior margin strongly concave, lateral margins sinuate, posterior lobe widened at lateral angles and depressed anteriorly, transverse constriction distinct, anterior lobe moderately gibbous; scutellum large, disk with a cruciform carination; corium two-thirds the length of abdomen, lateral margins almost straight; membrane reaching apex of abdomen, which is a little narrower at apex than at base; legs pilose, unarmed.

749. **Hyginus signifer,** *Walk.* (Heterogaster) *Cat. Het.* v, p. 74 (1872) *Dist. A. M. N. H.* (7) viii, p. 472 (1901).

Fig. 28.—*Hyginus signifer.*

Head, anterior lobe of pronotum, base of scutellum, and sternum black; abdomen beneath piceous; posterior pronotal lobe, scutellum, and corium brownish-ochraceous; membrane subhyaline, piceous on apical area; legs, rostrum, and antennæ stramineous; second, third, and fourth joints of antennæ piceous with their bases stramineous; head, pronotum, scutellum, and sternum thickly and coarsely punctate; central carination to scutellum stramineous, levigate; corium sparingly punctate, its extreme lateral margins luteous; body finely pilose, legs strongly pilose.

Length 7 millim.

Hab. Ceylon; Tangalla (*Green*).

Subfamily VII. PACHYGRONTHINÆ.

In the Pachygronthinæ the anterior femora are much incrassated and spined beneath, the rostrum short and not extending beyond, or only slightly beyond, the anterior coxæ.

A small subfamily, comprising fewer than a dozen genera, and very widely distributed. Only two are at present known from British India.

Synopsis of Genera.

A. First joint of antennæ very short, not reaching apex of head; scutellum nearly equilateral .... PHLEGYAS, p. 39.

B. First joint of antennæ very long, longer than any of the other joints; scutellum a little longer than broad .... PACHYGRONTHA, p. 40.

Genus PHLEGYAS.

Phlegyas, *Stål, Hem. Afr.* ii, p. 145 (1865); *id. En. Hem.* iv, p. 138 (1874).
Helenotus, *Uhler, Bull. U.S. Geol. Geog. Surv.* v, p. 312 (1876).
Peliopelta, *Uhler, Check-List Hem. Het. N. Am.* p. 15 (1886).
Helonotocoris, *Leth. Ann. Mus. Civ. Gen.* 1888, p. 463.

Type, *P. annulicrus*, Stål, a North-American species.

Distribution. Nearctic, Neotropical, and Oriental Regions.

Body elongate; first joint of antennæ very short, not reaching apex of head; eyes prominent; first joint of rostrum not reaching base of head; pronotum convex; scutellum subequilateral; apical margin of corium sinuate near apex of clavus; anterior femora moderately incrassated.

750. **Phlegyas burmanus**, sp. n.

Fig. 29.
Phlegyas burmanus.

Head, pronotum, and scutellum black, finely pilose; antennæ, eyes, and two obscure discal spots to pronotum dull, dark ochraceous; basal joint of antennæ piceous; apical margin and apex of scutellum and the corium ochraceous; membrane obscure hyaline: body beneath piceous; lateral areas of sternum and lateral margins of abdomen obscure ochraceous; femora mostly black, their upper surfaces and apices, the tibiæ and tarsi ochraceous, bases and apices of tibiæ black; third and fourth joints of antennæ longest and subequal in length; pronotum somewhat coarsely granulate, with a distinct central longitudinal carination.

Length 4 millim.

Hab. Burma; Pegu.

Genus **PACHYGRONTHA**.

Pachygrontha, *Germ. in Silb. Rev. Ent.* v, p. 152 (1837); *Stål, Hem. Afr.* ii, pp. 146 & 147 (1865); *id. En. Hem.* iv, p. 138 (1874).
Pachygroncha, *Spin. Gen. d'Ins. Atr.* p. 140 (1852).
Atractophora, *Stål, Öfv. Vet.-Ak. Förh.* 1853, p. 250.
Peliosoma, *Uhler, Proc. Ac. Philad.* 1860, p. 229.
Dilophos, *Montr. Ann. Soc. Linn. Lyon,* xi, 1864, p. 226.

Type, *P. lineata*, Germ., a South-African species.

Distribution. Ethiopian, Eastern Palæarctic, Oriental, and Neotropical Regions.

Basal joint of antennæ longest, very considerably passing the apex of the head, its apex distinctly incrassated; scutellum longer than broad; apical margin of corium straight.

a. *First joint of antennæ about as long as head and pronotum together.*

751. **Pachygrontha lewisi**, *Dist. A. M. N. H.* (7) viii, p. 474 (1901).

Ochraceous; body above, sternum, and legs coarsely punctate; pronotum with a central pale levigate fascia, bordered on each side with piceous, a spot of the same colour in each anterior lateral

area, and one at each posterior angle; scutellum with the base black and a central, basal, lunate, levigate, pale fascia, continued in a straight line to apex, which is similarly levigate; inner claval margin and apex of clavus piceous; corium with the punctures arranged in longitudinal series, its apex and a somewhat large spot at inner angle piceous: membrane with two converging piceous fasciæ from base to apex; abdomen beneath pale, impunctate;

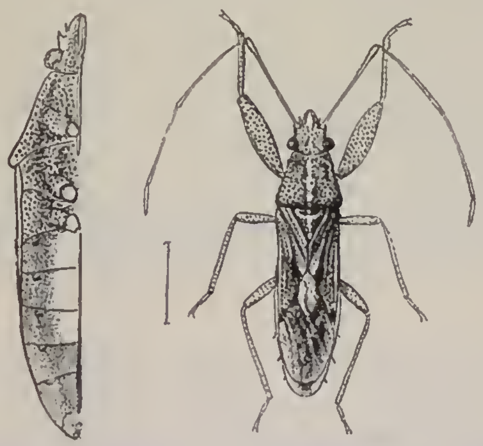

Fig. 30.—*Pachygrontha lewisi.*

a lateral fascia on each side from head to apex of abdomen, a narrow central macular fascia to abdomen, and margins of the anal appendage black.

Antennæ with the second and third joints subequal in length, the first longest, fourth shortest. Eyes projecting a little beyond anterior margin of pronotum.

Length 8 millim.

Hab. Ceylon (*Lewis & Green*).

Beaten from tufts of *Cyperus* sp. (*Green*).

752. **Pachygrontha nigrovittata**, *Stål, Öfv. Vet.-Ak. Förh.* 1870, p. 662.

Ochraceous; above with head beneath and sternum thickly darkly punctate, the punctures at the lateral margins of the pronotum more dense, and giving a dark fasciate-like appearance; apical margin of the corium with three small dark spots, one at inner angle, one medial, and the other at apical angle; disks of meso- and metasterna, a sublateral fascia, and apical discal fascia to abdomen black; legs punctured with black; basal joint of antennæ about as long as head and pronotum together; a central levigate line to pronotum and scutellum.

Length 10 to $10\frac{1}{2}$ millim.

Hab. Assam: Sibságar (*Peal*). Ceylon (*Lewis*); Peradeniya (*Green*). Tenasserim (*Coll. Dist.*).—Philippines.

b. *First joint of antennæ about as long as head, pronotum, scutellum, and claval suture together.*

753. **Pachygrontha dixoni**, sp. n.

Pale ochraceous, thickly punctate, the punctures a little darker, in some specimens the apical angle of the corium roseate; head beneath, sternum, sublateral margins, and apex of abdomen fuscous; basal joint of antennæ about as long as head, pronotum, scutellum, and claval suture together; pronotum with a central levigate line; scutellum with a central levigate line, on each side of which at base is an oblique spot or callosity; head with eyes a little broader than pronotum.

Length 7 millim.

Hab. Bombay; Bor Ghát (*Dixon*). Ceylon (*Lewis*).

Allied to *P. tabida*, Stål, but differing by the presence of the anterior callous spots to scutellum, different colour of abdomen beneath, &c.

c. *First joint of antennæ reaching apical angle of corium.*

754. **Pachygrontha longicornis**, *Stål* (Atractophora), *Ann. Soc. Ent. Fr.* 1865, p. 188.

Ochraceous; above with head beneath and sternum darkly punctate; pronotum with three central carinæ, the central most distinct; scutellum with a central carina, which is bifurcate to the basal angles; abdomen with a faint basal, submarginal black fascia; legs darkly punctate; antennæ very long, basal joint reaching or almost reaching apical angle of corium; head, including eyes, a little broader than anterior margin of pronotum.

Length 13 millim.

Hab. Burma; near Rangoon (*Coll. Dist.*).—Originally described from the Island of Mysol.

Subfamily VIII. OXYCARENINÆ.

The Oxycareninæ differ from the Pachygronthinæ in having the anterior femora not incrassated, and by the rostrum extending considerably beyond the anterior coxæ.

This subfamily contains at present some fourteen genera, of which only one is recorded from British India. The majority are purely Palæarctic in distribution, *Oxycarenus* being the dominant and most widely distributed genus, while one is only found in the Nearctic and Neotropical Regions.

Genus OXYCARENUS.

Oxycarenus, *Fieb. Weit. Beitr.* 1836, p. 339; *id. Eur. Hem.* pp. 53 & 205 (1861); *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 50; *id. En. Hem.* iv, p. 141 (1874).
Stenogaster, *Hahn, Wanz.* iii, p. 15 (1835); *Herr.-Sch. Wanz.* ix, p. 213 (1853).

Type, *O. lavateræ*, Fabr., a Palæarctic species.

Distribution. Palæarctic, Ethiopian, Oriental, and Australasian Regions.

Body oblong or a little elongate; head triangular, porrect, produced anteriorly in front of the antenniferous tubercles; rostrum long and slender; pronotum trapezoidal, constricted medially; scutellum triangular, a little broader than long; hemelytra complete, broader and longer than the abdomen, the lateral margins straight and dilated; legs with the femora moderately incrassated and very finely spined beneath.

755. **Oxycarenus lætus**, *Kirby, J. Linn. Soc., Zool.* xxiv, p. 102 (1891).

Head, antennæ, pronotum, scutellum, body beneath, and legs piceous; corium very pale stramineous, with a small piceous spot at apical angle; membrane pale greyish hyaline; intermediate and posterior tibiæ pale stramineous, their bases and apices piceous; tarsi stramineous, their apices piceous; acetabula and posterior margin of metasternum stramineous; anterior femora distinctly spined beneath.

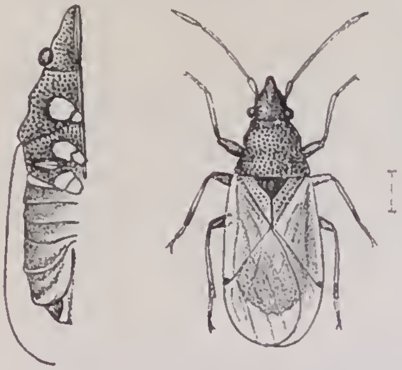
Fig. 31.—*Oxycarenus lætus.*

Length 4 millim.

Hab. Calcutta. Bombay (*Dixon*). Ceylon (*Green*). Burma; Mandalay (*Fea*).

Frequents the seed-capsules of *Abutilon asiaticum* in Ceylon (*Green*). Collected on the capsules of the cotton-plant *Gossypium stocksii* at Bombay (*Dixon*).

756. **Oxycarenus proximus**, *Walk.* (Anthocoris) *Cat. Het.* v, p. 152 (1872); *Dist. A. M. N. H.* (7) viii, p. 475 (1901).

Head, anterior lobe of pronotum, and scutellum black; posterior pronotal lobe and clavus piceous or castaneous; corium piceous, with about basal third white; membrane pale bronzy-brown, the basal margin and inner angle somewhat broadly white: body

beneath black; posterior margin of metasternum white; antennæ black; legs piceous, posterior tibiæ with a broad white annulation; posterior lobe of pronotum granulate; rostrum reaching the posterior coxæ.

Length 5 millim.

Hab. "Hindostan" (*Parry*, *Brit. Mus.*).

Walker describes the exterior margin of the corium as white; it is, however, the basal margin of the membrane which is of that colour.

757. **Oxycarenus heraldus**, sp. n.

Head, antennæ, and rostrum piceous; pronotum castaneous, with a submarginal anterior black fascia; scutellum piceous; corium very pale stramineous; clavus and a large spot near inner angle castaneous; membrane, body beneath, and legs piceous or very dark castaneous; posterior margin of metasternum and tibiæ pale stramineous; intermediate and posterior tibiæ with their bases and apices piceous.

Length 3 to $3\frac{1}{2}$ millim.

Hab. Burma; Karennee (*Fea*).

758. **Oxycarenus bicolor**, *Fieb. Rhynchotogr.* p. 39 (1851).

Head, antennæ, pronotum, scutellum, body beneath, and femora piceous; corium piceous, the clavus brownish, basal and apical angular areas white, the last with a small piceous spot near apical angle; membrane dark fuliginous, its apical margin whitish; anterior tibiæ brownish, intermediate and posterior tibiæ and all the tarsi pale luteous, the first with their bases and apices and the last with their apices piceous; spots to metasternum (imperfectly seen in carded specimens) luteous; head, pronotum, and scutellum greyishly pilose; anterior femora distinctly spined beneath.

Length 3 millim.

Hab. Burma; Bhamo (*Fea*).

759. **Oxycarenus lugubris**, *Motsch.* (Stenogaster) *Ét. Ent.* viii, p. 108 (1859); *Dist. A. M. N. H.* (7) viii, p. 475 (1901).
Rhopalus ? funeralis, *Kirby, J. Linn. Soc., Zool.* xxiv, p. 97, pl. iv, f. 7 (1891).

Piceous; membrane black, its apical margin fuliginous; lateral margin of corium, a somewhat large subbasal spot, intermediate and posterior tibiæ, and posterior margin of metasternum pale stramineous or greyish; bases and apices of intermediate and posterior tibiæ piceous: body above greyishly pilose; anterior femora distinctly spined beneath.

Length 4 millim.

Hab. Ceylon (*Green & Lewis*).

In Ceylon this insect infests the ripe pod of the cotton, discolouring and caking the cotton (*Green*).

Subfamily IX. APHANINÆ.

The distinguishing character of this, the largest subfamily of the Lygæidæ, is to be found in the character of the third ventral incisure, which does not reach the abdominal lateral margins, near which it is recurved.

The Aphaninæ comprise a large number of genera, which fall into fairly well-marked divisions. They are distributed in all parts of the world, and many more remain to be discovered when the smaller insects are more thoroughly searched for in the tropics.

Division *CLERADARIA*.

Cleradaria, *Stål, En. Hem.* iv, p. 143 (1874).

First and second joints of the rostrum taken together about equal in length to the head, third joint much the shortest; ocelli situate wide apart.

Synopsis of Genera.

A. Head longer than pronotum and not nearly immersed to eyes; first joint of antennæ passing apex of head .... CLERADA, p. 45.

B. Head not so long as pronotum, nearly immersed to eyes; first joint of antennæ only reaching apex of head.............................. EDULICA, p. 46.

Genus **CLERADA**.

Clerada, *Sign. in Maillard, Notes sur l'Ile de la Réunion, Ins.* p. 28 (1862); *Stål, Hem. Afr.* ii, pp. 152 & 155 (1865): *id En. Hem.* iv, p. 143 (1874).

Type, *C. apicicornis*, Sign.

Distribution. Widely distributed; already recorded from the Oriental, Neotropical, and Australasian Regions; also found in the Mascarene Islands.

Body narrowly ovate, depressed; head porrect, a little longer than the pronotum, not nearly immersed to the eyes; rostrum extending to the intermediate coxæ, first and second joints together equal in length to head; antennæ with the first joint shorter than the head, but passing its apex; pronotum transverse, trapezoidal, narrowed anteriorly, its lateral margins acute, reflexed, medially sinuate; scutellum triangular; corium much longer than the membrane, its costal margin moderately convex; femora unarmed.

760. **Clerada apicicornis**, *Sign. in Maillard, Notes sur l'Ile de la Réunion, Ins.* p. 28, pl. xx, f. 8 (1862); *Stål, Hem. Afr.* ii, p. 155 (1865); *Dist. A. M. N. H.* (7) viii, p. 476 (1901).
Gastrodes terminalis, *Walk. Cat. Het.* v, p. 122 (1872).

Dark brownish-ochraceous; margins of the pronotum, lateral

margins of the corium (widest near base), and disk of abdomen beneath luteous; antennæ fuscous, base of second joint ochraceous, apical joint pale luteous; rostrum and legs pale luteous; head centrally granulate between eyes; pronotum, scutellum, and corium thickly and finely punctate.

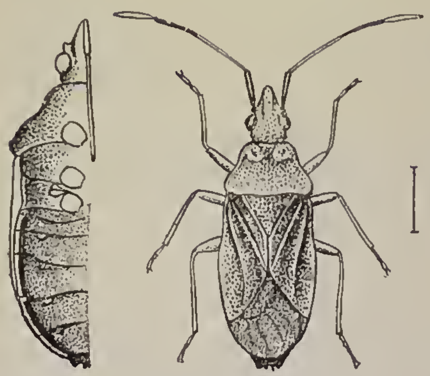

Fig. 32.—*Clerada apicicornis.*

Length 6 to 7 millim.

Hab. Bengal (*Stockholm Mus.*). Ceylon (*Green*).—Samoa (*Coll. Dist.*). Isld. Réunion. Mexico. Venezuela. West Indies.

Genus **EDULICA.**

Edulica, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 45.

Type, *E. ornata*, Dist.

Distribution. Ceylon.

Body subovate, elongate; head narrowed and acuminate in front of eyes, which are large and placed somewhat near base, ocelli situate near lateral margins immediately behind eyes; rostrum reaching posterior coxæ, first joint almost reaching base of head; antennæ robust, first joint shortest, reaching apex of head, about half the length of second, third very slightly shorter than fourth; pronotum transverse, broader than long, anterior margin moderately concave, lateral margins nearly straight, very slightly rounded, posterior margin straight; scutellum subtriangular, a little tumid on lateral areas; corium covering two-thirds of abdomen, apical margin nearly straight, lateral margins a little ampliated; membrane reaching abdominal apex; femora moderately incrassated.

761. **Edulica ornata**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 45.

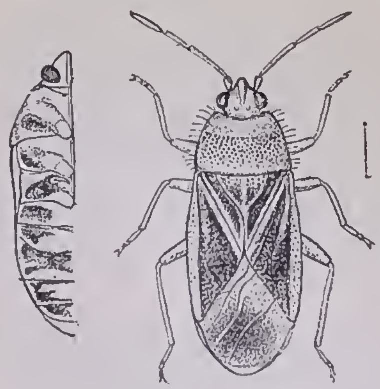

Fig. 33.—*Edulica ornata.*

Ochraceous; eyes black; central area of pronotum strongly punctate and fuscous; apical margins of scutellum, clavus, corium (excepting base and lateral margins), spots near the anterior and posterior coxæ, marginal abdominal spots, and transverse suffusions to the last three abdominal segments piceous; membrane with fuscous suffusions on apical area; scutellum, clavus, and corium distinctly punctate; lateral margins of corium somewhat strongly pilose.

Length 5 millim.

Hab. Ceylon; Peradeniya (*Green*).

Division *MYODOCHARIA.*

Myodocharia, *Stål, En. Hem.* iv, p. 142 (1874).

Pronotum with a distinct collar, and near middle prominently constricted, the lateral margins at the area of the constriction distinctly angulated; the lateral margins of the anterior lobe obtuse, convex, neither dilated, callous, nor carinate; first and second joints of the rostrum passing base of head, third joint not shortest, generally equal in length to second joint.

Synopsis of Genera.

A. Head about as long as pronotum.
  a. Head strongly constricted and slender behind eyes .... VERTOMANNUS, p. 47.
  b. Head scarcely constricted behind eyes .. ALTOMARUS, p. 48.
B. Head about as long as anterior lobe of pronotum.
  a. Apex of scutellum produced in a robust conical spine .... UDALICRUS, p. 49.
  b. Apex of scutellum unarmed: anterior lobe of pronotum not twice as long as posterior lobe.
    a'. Pronotal collar broad; body prominently elongate .... PAROMIUS, p. 50.
    b'. Pronotal collar narrow; body subelongate .... PAMERA, p. 51.
C. Head shorter than anterior lobe of pronotum: anterior lobe of pronotum twice as long as posterior lobe; anterior tibiæ, at least in male sex, more or less spinous.
  a^2. Eyes not stylated; anterior pronotal lobe moderately globose.............. EUCOSMETUS, p. 55.
  b^2. Eyes stylated; anterior pronotal lobe gibbously globose .... CARIDOPS, p. 56.

Genus VERTOMANNUS.

Vertomannus, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 45.

Type, *V. capitatus*, Dist.

Distribution. Oriental Region.

Head longer than the pronotum, strongly exserted on a cylindrical process about as long as the apical half, which is thickened, subglobose, somewhat conically produced at apex; antennæ with the first joint moderately thickened, considerably passing apex of head, second, third, and fourth joints slender, pilose, almost subequal in length; rostrum about reaching the anterior coxæ, first joint thickened and reaching the area of the eyes; pronotum with the anterior lobe only about half the length

of the posterior lobe; scutellum triangular; body elongate; lateral margins of the corium slightly concavely sinuate; membrane passing the apex of the abdomen; legs slender, femora a little apically incrassated.

Allied to the American genus *Myodocha*, from which it can be at once separated by the structure of the pronotum.

762. **Vertomannus capitatus**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 46.

Head, sternum, anterior lobe of pronotum, and scutellum black; posterior pronotal lobe, corium, and body beneath pale castaneous; apex of scutellum pale luteous; corium much suffused with whitish coloration, principally a spot about one-third from base of lateral margin, a subapical spot, angulate anteriorly, and a small rounded spot near inner angle; membrane fuscous, with a large marginal spot and apex pale subhyaline; legs luteous, apical halves of femora reddish-ochraceous, apices of tibiæ and tarsal joints fuscous; antennæ ochraceous, apical joint (excluding base) piceous; posterior pronotal lobe and corium sparingly but coarsely punctate, the pale spots to corium levigate; posterior lobe of pronotum centrally carinate on its anterior area; legs finely hirsute; rostrum luteous, basal joint castaneous.

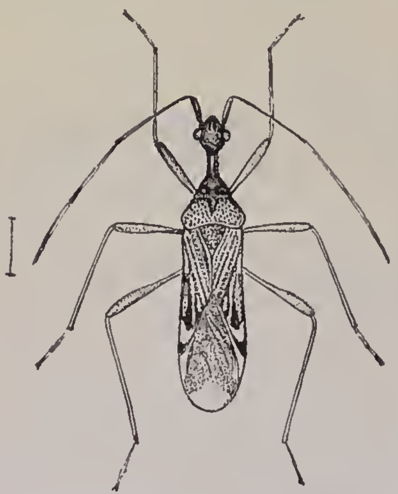

Fig. 34.—*Vertomannus capitatus.*

Length 6 to $6\frac{1}{2}$ millim.

Hab. Assam; Margherita. Burma.

Genus **ALTOMARUS.**

Altomarus, *Dist. A. M. N. H.* (7) xi, p. 72 (1903).

Type, *A. greeni*, Dist.

Distribution. Ceylon, Burma.

Elongate; head long, about as long as pronotum, anteocular portion about as long as postocular portion, angularly produced in front of eyes; first joint of antennæ about reaching the apex of head; rostrum long, about reaching the intermediate coxæ, first joint much shorter than head, just passing the region of the eyes; pronotum with a very distinct anterior collar, anterior lobe slightly longer but much narrower than posterior lobe, subglobose, its

margins convex, posterior lobe slightly gibbous, the lateral angles rounded and subprominent; scutellum elongately triangular; corium moderately widened towards apex, its apical margins straight; membrane passing the abdominal apex; anterior femora incrassated, armed beneath with a series of long spines; anterior tibiæ a little shorter than the femora and slightly curved; intermediate and posterior legs slender.

763. **Altomarus greeni**, *Dist. A. M. N. H.* (7) xi, p. 73 (1903).

Head, pronotum, scutellum and sternum shining black; abdomen shining piceous; corium pale castaneous; antennæ, anterior pronotal collar, apex of scutellum, basal half of lateral margin, a spot before apex, one at inner angle, and venation of corium and the legs pale ochraceous; first joint of antennæ and apical half of fourth joint and subapical annulation to femora piceous; head very coarsely punctate; anterior pronotal lobe impunctate, posterior lobe and scutellum finely punctate; corium linearly punctate; membrane pale brownish, with three distinct pale apical spots; antennæ with the first joint shortest, second longest, fourth a little longer than third.

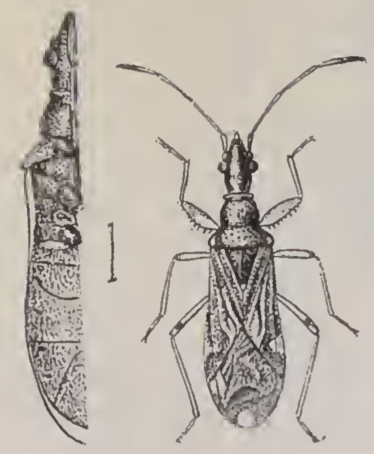

Fig. 35.—*Altomarus greeni.*

Length 5 millim.

Hab. Ceylon; Gampola (*Green*). Burma; Bhamo (*Fea*).

Genus **UDALRICUS**, nov.

Type, *U. scutellatus*, Dist.

Distribution. Burma.

Body elongate; head long, about as long as anterior lobe of pronotum; first joint of antennæ robust, considerably passing apex of head, second longest, first, third and fourth joints subequal; basal joint of rostrum about reaching the area of the eyes; pronotum deeply transversely impressed, anterior lobe globose, much longer than posterior lobe which has the lateral angles subprominent; scutellum with the apex produced into a robust conical spine, slightly directed upward; abdominal margins a little upwardly dilated, extending beyond the margins of the corium; anterior femora incrassated, finely spined beneath; abdominal apex truncate.

764. **Udalricus scutellatus**, sp. n.

Black, opaque; second, third and fourth joints of antennæ, bases of intermediate and posterior femora, tibiæ, tarsi and lateral margins of mesosternum ochraceous; nearly basal half of corium and a marginal spot between it and apex luteous; membrane with a large white spot on each side; head, pronotum

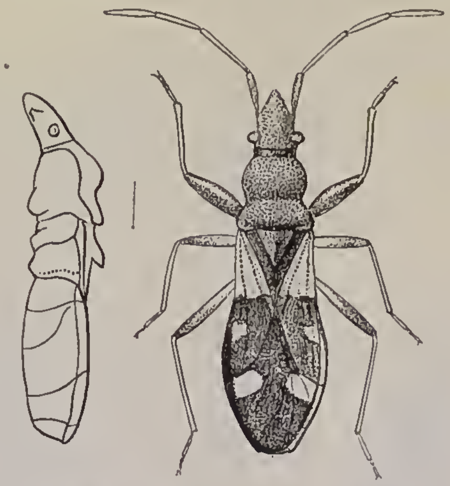

Fig. 36.—*Udalricus scutellatus.*

and scutellum very finely and obscurely granulate; connexivum greyishly pubescent; anterior femora with a distinct spine beneath a little beyond middle.

Length 5 millim.

Hab. Burma; Karennee (*Fea*).

Genus **PAROMIUS.**

Paromius, *Fieber, Eur. Hem.* pp. 45 & 170 (1861); *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 51.
Stenocoris, *Ramb. Faun. Ent. Andal.* p. 139 (1838).

Type, *P. leptopoides*, Baerenspr., a Palæarctic species.

Distribution. Palæarctic, Ethiopian, Nearctic, and Neotropical Regions.

Body elongate, slender; pronotal collar broad; head about as long as anterior lobe of pronotum; antennæ moderately long, first joint passing the apex of the head; rostrum reaching anterior coxæ, first joint not reaching base of head; scutellum long, subtriangular, centrally carinate on apical area; corium longer than membrane, apical margin straight; anterior femora incrassated, spined beneath.

765. **Paromius seychellesus**, *Walk.* (Plociomerus) *Cat. Het.* v, p. 120 (1872); *Dist. A. M. N. H.* (7) viii, p. 477 (1901).
Pamera ejuncida, *Dist. Tr. E. S.* 1883, p. 433, pl. xx, f. 3.

Head and anterior lobe of pronotum black, the collar of the last

brownish; posterior pronotal lobe ochraceous, sparsely but deeply punctate, brownish anteriorly, with a central piceous line which does not reach posterior margin; scutellum castaneous, with either the basal half black and a central black line, or with a large central basal spot, the basal half of lateral margins and a central line black, apex luteous; corium pale ochraceous, sparingly punctured with brown, the lateral margins pale and impunctate, a black spot near centre of apical margin, attached to which are some linear black punctures more or less enclosing a subtriangular pale spot at claval apex; clavus thickly and longitudinally brown-punctured; membrane greyish-white; head beneath and sternum piceous; abdomen castaneous with a few transverse stigmatal piceous spots; antennæ and legs ochraceous; apices of tarsi black, coxæ castaneous; apex of rostrum piceous.

Fig. 37.—*Paromius seychellesus.*

Length $7\frac{1}{2}$ millim.

Hab. Ceylon; Peradeniya (*Green*). Burma; Bhamo (*Fea*).—Japan (*Lewis*). Seychelle Islands (*Brit. Mus.*).

766. **Paromius exiguus**, *Dist.* (Pamera) *Tr. E. S.* 1883, p. 434.

Allied to the preceding species (*P. seychellesus*, Walk.), but differing by the shorter and less elongate anterior lobe of the pronotum; the apical joint of the antennæ distinctly infuscated; the whole of the body beneath uniformly piceous; all the femora (excluding apices) more or less piceous; membrane pale fuscous, with the veins greyish.

Length 7 millim.

Hab. Ceylon; Tangalla (*Green*).—Japan (*Lewis*).

Genus **PAMERA**.

Pamera, *Say* (part.), *New Harm. Ind.* (1831); *id. Compl. Writ.* i, p. 332 (1859); *Stål, En. Hem.* iv, p. 144 (1874).
Plociomerus, *Amy. & Serv. Hem.* p. 255 (1843); *Fieb. Europ. Hem.* pp. 45 & 171 (1861).
Subg. Diplonotus, *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 51.
Subg. Orthæa, *Dall. List Hem.* ii, pp. 532 & 580 (1852).
Subg. Gyndes, *Stål, Stett. ent. Zeit.* xxiii, p. 314 note (1862).

Type, *P. vincta*, Say.

Distribution. Somewhat universally distributed.

Allied to *Paromius*, but much less elongate and more robust in form; pronotal collar narrow; head as long as anterior pronotal lobe or a little longer.

A. *Anterior femora excluding apices wholly black or dark castaneous.*

a. *Intermediate and posterior femora more or less black or castaneous.*

767. **Pamera pallicornis**, *Dall.* (Rhyparochromus) *List Hem.* ii, p. 573 (1852): *Horv. Termész. Füzetek*, iii, p. 147 (1879); *Dist. A. M. N. H.* (7) viii, p. 479 (1901).
Plociomerus discoguttatus, *Dohrn, Stett. ent. Zeit.* xxi, p. 404 (1860).
Rhyparochromus delineatus, *Walk. Cat. Het.* v, p. 103 (1872).

Head and anterior lobe of pronotum black; posterior pronotal lobe castaneous with four small luteous spots (two central and one near each lateral angle), or in some specimens black with the spots obsolete as in the specimen here figured; scutellum black; corium pale luteous, brownly punctate; lateral margin impunctate, a very small subbasal spot, an irregular transverse spot crossing disk from inner angle and an apical angular spot dark castaneous; membrane fuliginous, with basal area and small apical marginal spots dark castaneous: body beneath piceous; posterior angles of metasternum, legs, and antennæ luteous; extreme apex of third joint of antennæ, extreme base and apical half of fourth joint, anterior femora (excluding apices), apical halves of intermediate and posterior femora and apices of the tarsi fuscous or piceous; rostrum piceous.

Fig. 38.—*Pamera pallicornis.*

Length 6 millim.

Hab. Shillong, Margherita (*Ind. Mus.*). Kurseong. Ceylon (*Lewis & Green*). Burma; Rangoon, Palon, Bhamo, Karennee, Teinzo (*Fea*). Tenasserim; Kawkaret (*Fea*).—Philippines; Japan.

768. **Pamera vincta**, *Say, New Harm. Ind.* (1831); *id. Compl. Writ.* i, p. 333 (1859); *Dist. A. M. N. H.* (7) viii, p. 480 (1901).
Lygæus (Plociomerus) amyotii, *Guér., in Sagra, Hist. de Cuba, Ins.* p. 400 (1857).
Rhyparochromus gutta, *Dall. List Hem.* ii, p. 573 (1852).
Rhyparochromus parvulus, *Dall. op. cit.* p. 576 (1852).
Rhyparochromus vinulus, *Stål, Freg. Eug. Resa, Ins. Hem.* p. 246 (1859).
Plociomera parvula, var. *a, Stål, Hem. Afr.* ii, p. 159 (1865).
Ligyrocoris bipunctatus, *Kirby, J. Linn. Soc., Zool.* xx, p. 547 (1890).

Head, pronotum, scutellum and body beneath black; basal marginal area of posterior pronotal lobe usually more or less castaneous; antennæ, corium and legs luteous; apical joint of

antennæ, apical margin of corium, anterior femora (excluding apices), and subapical annulations to intermediate and posterior femora fuscous, castaneous, or black; membrane greyish, veins at base generally somewhat castaneous; corium brownly punctate, lateral margins impunctate, a pale impunctate spot near apex of claval suture; rostrum dark castaneous.

Length 3 to 4 millim.

Hab. Bengal; Runchi (*Irvine*), Calcutta. Ceylon (*Green & Lewis*). Burma; Rangoon, Palon, Bhamo (*Fea*).—This species is apparently distributed throughout the tropical and subtropical regions; it was found by Dr. Andrews at Christmas Island, is recorded from the island of Tahiti, occurs in South Africa, is common throughout the Neotropical Region, and was described by Say from North-American specimens.

769. **Pamera nietneri,** *Dohrn* (Plociomerus), *Stett. ent. Zeit.* xxi, p. 404 (1860); *Stål, En. Hem.* iv, p. 151 (1874).

Head, anterior lobe of pronotum, and scutellum black, posterior pronotal lobe and corium very dark castaneous; lateral margin of corium luteous, impunctate, two small spots a little before apical angle greyish-white; membrane dark fuliginous: body beneath and legs black; apex of scutellum, apices of anterior femora, anterior tibiæ (excluding apices), basal halves of intermediate and posterior femora, intermediate and posterior tibiæ (excluding bases and apices) and bases of tarsi luteous; antennæ piceous, second joint castaneous; rostrum piceous, second joint luteous.

Length $6\frac{1}{2}$ to 7 millim.

Hab. Ceylon; Peradeniya, Tangalla (*Green*). Burma; Bhamo (*Fea*).

b. *Intermediate and posterior femora ochraceous.*

770. **Pamera undulata,** *Dohrn* (Plociomerus), *Stett. ent. Zeit.* xxi, p. 404 (1860).

Head, pronotum and scutellum black; margins of pronotal lateral angles, apex of scutellum, corium and legs ochraceous: body beneath and anterior femora (excluding apices) black; corium brownly punctate, the lateral margins impunctate; an enclosed pale levigate spot margined with brown near apex of claval suture, the apical margin brownly fuscous; membrane pale semihyaline, with some pale fuscous marginal spots; antennæ dark ochraceous, the apical joint fuscous; membrane dark ochraceous, the apex fuscous.

Length 5 millim.

Hab. Ceylon (*fide Dohrn*). Burma; Rangoon.

B. *Anterior femora only annulated with black or castaneous.*

771. **Pamera punctulata,** *Motsch.* (Plociomerus) *Bull. Soc. Nat. Mosc.* 1863, p. 79.

Head, anterior lobe of pronotum, and scutellum black; posterior pronotal lobe ochraceous, with five dark fuscous fasciæ—one central and two on each lateral area; corium ochraceous much suffused and punctured with brown, the lateral margins pale impunctate; membrane subhyaline, much suffused with pale fuscous: body beneath black; legs pale ochraceous, femora annulated with brown before apices; extreme bases and apices of tibiæ and apices of tarsi pale fuscous; antennæ dark ochraceous, apical joint stramineous, apex of third joint and base and apex of fourth joint fuscous.

Length $5\frac{1}{3}$ millim.

Hab. Ceylon (*fide Motschoulsky*). Burma (*Coll. Dist.*); Bhamo (*Fea*).

772. **Pamera geniculata,** *Motsch.* (Plociomerus) *Bull. Soc. Nat. Mosc.* 1863, p. 81.

Head, anterior lobe of pronotum, scutellum and sternum piceous, greyishly pubescent; posterior pronotal lobe obscure castaneous; second and third joints of antennæ, apex of scutellum, corium and legs luteous; membrane subhyaline, with darker venation and small darker marginal spots; femora somewhat obsoletely subapically darkly annulate; bases of tibiæ piceous *; corium brownly punctate, lateral margins impunctate, a small impunctate greyish spot near apex of claval suture; abdomen beneath castaneous.

Length 3 millim.

Hab. Ceylon (*fide Motschoulsky*). Burma; near Rangoon.

C. *Legs wholly ochraceous.*

773. **Pamera scotti,** *Dist.* (n. nom.) *A. M. N. H.* (7) viii, p. 479 (1901).
Diplonotus luridus, *Scott, A. M. N. H.* (4) xiv, p. 432 (1874), *nom. præocc.*

Head, anterior lobe of pronotum, scutellum and sternum black, greyishly pilose; antennæ, rostrum, pronotal collar, posterior lobe of pronotum, apex of scutellum, corium, lateral margins of meso- and metasterna, posterior margin of metasternum and legs ochraceous; abdomen beneath pale castaneous; apical half of fourth joint of antennæ and two posterior marginal spots to corium (one at apical angle, the other a little above it) fuscous; membrane ochraceous, mottled with pale fuscous, and with a series of small marginal spots of the same colour; posterior lobe of pronotum with three brown fasciæ, one central and two lateral; corium and clavus longitudinally brownly punctate, lateral margins

* Motschoulsky writes "tibiarumque apice nigro-piceis."

of corium impunctate; an enclosed pale impunctate spot near inner angle.

Var. *a.* Apical angular fuscous spot to corium continued along apical margin.

Length 5 millim.

Hab. Assam; Margherita (*Coll. Dist.*). Ceylon; Peradeniya (*Green*). Burma; Karennee (*Fea*).—Japan (*Lewis*).

774. **Pamera flavipes,** *Motsch.* (Plociomerus) *Bull. Soc. Nat. Mosc.* 1863, p. 80.

Head and scutellum piceous; pronotum and body beneath dark castaneous; corium brownish-ochraceous, thickly darkly punctate: basal joint of antennæ, lateral margins of corium and legs luteous; membrane fuliginous, the veins paler; antennæ (excluding basal joint) fuscous, apical joint palely pilose; rostrum brownish.

Length 5 millim.

Hab. Ceylon; Peradeniya (*Green*). Burma; Bhamo (*Fea*).

775. **Pamera sobrina,** *Dist. A. M. N. H.* (7) viii, p. 480 (1901).

Head pale piceous; pronotum, scutellum and body beneath pale castaneous; corium, membrane, antennæ, rostrum and legs ochraceous; apices of the second and third joints of the antennæ and apical half of the fourth joint infuscated. Anterior lobe of the pronotum prominent, globose; corium punctate, its lateral margins pale, impunctate.

Length $4\frac{1}{2}$ to 5 millim.

Hab. Calcutta (*Atkinson Coll., Brit. Mus.*). Ceylon (*Lewis*). Burma; Rangoon, Bhamo, Teinzo, Karennee (*Fea*).

Genus EUCOSMETUS.

Eucosmetus, *Bergr. Rev. d'Ent.* xiii, p. 156 (1894).

Type, *E. formosus*, Bergr., from Java.

Distribution. Oriental Region and Japan.

Anterior lobe of pronotum at least twice as long as posterior lobe, basal margin moderately concave; anterior tibiæ in the male more or less spinous beneath; head long, broad and somewhat flattened, constricted behind eyes; antennæ with the first joint reaching the apex of head. As Dr. Bergroth remarks, *Eucosmetus* is allied to the Chilian genus *Erlacda*, but differs by the posterior portion of the head being destitute of tubercles, the first joint of the antennæ reaching the apex of the head, anterior tibiæ in male armed with three small spines, in the female unarmed.

a. *Anterior tibiæ in male prominently spined beneath.*

776. **Eucosmetus insignis,** *Dist. A. M. N. H.* (7) viii, p. 482 (1901).

Head, pronotum, scutellum, membrane, body beneath and legs

black; corium pale reddish, with a very small sublateral spot near base, a median lateral spot and the apical area very pale luteous; a black linear lateral spot between the pale median spot and apical area and a subapical angulate spot black; membrane with an apical, rounded, very pale luteous spot; apex of anterior femora and the whole of the anterior tibiæ and tarsi, basal halves of the intermediate and posterior femora and the tarsi, and central base of head beneath ochraceous; first joint of antennæ black, with its base luteous, remaining joints mutilated. Head and posterior lobe of pronotum coarsely punctate; clavus and claval margin linearly punctate; anterior tibiæ curved, their apices moderately dilated and armed with two strong spines beneath.

Fig. 39.—*Eucosmetus insignis.*

Length $6\frac{1}{2}$ millim.

Hab. Assam; Margherita (*Ind. Mus. & Coll. Dist.*).

b. *Anterior tibiæ in the male obscurely spined beneath.*

777. **Eucosmetus incisus**, *Walk.* (Rhyparochromus) *Cat. Het.* v, p. 100 (1872); *Dist. A. M. N. H.* (7) viii, p. 483 (1901).

Black, finely pilose, posterior lobe of pronotum somewhat longly greyishly pilose; corium, trochanters, bases of femora, extreme apices of anterior femora, bases of anterior tibiæ and posterior margin of metasternum luteous; clavus piceous, with two medial linear ochraceous spots; extreme base, an oblique transverse fascia near middle, the apical angle and apical margin of corium black; corium (excluding lateral margin) distinctly punctate; anterior femora incrassate, strongly spined beneath; anterior tibiæ in male with four very short spines on inner margin of apical half.

Length 7 millim.

Hab. Assam; Margherita. Ceylon (*Thwaites*; *Green*).

Genus CARIDOPS.

Caridops, *Bergr. Rev. d'Ent.* xiii, p. 158 (1894).

Type, *C. gibba*, Bergr.

Distribution. British India.

Head more or less triangular; eyes longly exserted, stylate; pronotum with the anterior lobe strongly globose, twice as long as posterior lobe, transverse incision profound, lateral angles sub-

prominent; scutellum small, subtriangular; greatest lengths of corium and membrane about equal; membrane extending a little beyond the apex of the abdomen; anterior femora strongly incrassate, spined beneath near apex; anterior tibiæ prominently notched at apex, preceded by a distinct spine; rostrum almost reaching the intermediate coxæ, first joint not quite so long as head; anterior coxæ with a long distinct spine; antennæ slender, third and fourth joints a little stoutest, first joint just passing apex of head.

778. **Caridops gibba**, *Bergr. Rev. d'Ent.* xiii, p. 159 (1894).

Head, pronotum, scutellum, rostrum and body beneath black; clavus black, the margins and a central streak luteous; corium pale luteous; two fascia-like streaks a little beyond base and apical angle continued along apical margin black; a broad transverse castaneous submedial fascia, outwardly margined with black and containing a small pale luteous spot near inner angle; membrane piceous, broadly white at apex; legs black; apices of anterior femora, basal areas of intermediate and posterior femora and the tarsi luteous; antennæ with the first and second joints brownish ochraceous, third and fourth fuscous, first annulated with luteous near base; lateral margins of pronotum and anterior femora very longly pilose.

Fig. 40.—*Caridops gibba.*

Length 5 millim.

Hab. Bombay (*Wroughton*).

I am indebted to Dr. Bergroth for the opportunity of figuring this species.

Genus and species not seen by the writer, and therefore not included in Synopsis of Genera.

Genus FONTEJANUS.

Fontejanus, *Bredd. Soc. Entomol.* xviii, p. 75 (1903).

Type, *F. wasmanni*, Bredd.

Distribution. Bombay.

Head with moderately large eyes forming an almost equilateral triangle, rather narrower than the pronotum, hind border of eyes touching anterior margin of pronotum; *ocelli touching the inner margin of eyes*; pronotum longer than breadth between lateral angles, near hind margin sharply and distinctly constricted, the posterior area almost flat, thickly punctured, above the base of

scutellum slightly excavated, front area impunctate and shining, rather strongly convex, not margined, broadest about middle, in front with a very short detached collar; scutellum distinctly longer than broad; anterior femora very strongly incrassate, armed beneath with spinules, especially in the terminal half; front tibiæ considerably shorter than the femora, strongly curved, towards the apex rather compressed and widened, and on the lower side just before apex with *one* long spur-like spine, middle femora slender, below with numerous short spinules arranged in rows; first joint of hind tarsi twice as long as two other joints together; rostrum extending beyond middle coxæ, first joint longer than head; first joint of antennæ extending considerably beyond apex of head, second joint longer than third.

Nearly allied to *Fontejus*, Stål, and *Eucosmetus*, Bergr.

779. **Fontejanus wasmanni**, *Bredd. Soc. Entomol.* xviii, p. 75 (1903).

Shining black or piceous-black; sternum, rostrum, legs and antennæ dull rusty-brown or dirty brownish-yellow; pronotum and middle upperside of anterior femora dark pitchy-brown; posterior area of pronotum rusty-brown, with darker punctuation and blackish lateral angles; hemelytra whitish with scattered black dots; base of clavus, some suffused markings on basal half of corium and its apical angle black; a dirty reddish-brown transverse band running through behind the middle of corium; membrane dark fuliginous; antennal joints three and four (excepting base) and apices of anterior tibiæ blackish-brown.

♂. Brachypterous, shining; head above moderately and thickly punctured, anterior area of pronotum about three and a half times as long as the hinder area in the middle; scutellum with lustre, hirsute, indistinctly punctured; hemelytra with a short, almost semicircular membrane extending to the base of the fifth abdominal segment, the distinctly separated clavus with a continuous row of dots; second joint of antennæ about twice as long as the first and hardly longer than the fourth, third joint about two-thirds as long as second joint; first and second joints of rostrum about equally long, third joint about two-thirds as long as second, fourth joint much the shortest.

Length $4\frac{1}{2}$ millim.

Hab. Khandála, near Bombay (*fide Breddin*).

Division *RHYPAROCHROMARIA*.

Rhyparochromaria, *Stål, En. Hem.* iv, p. 142 (1874).

Pronotum without, or very seldom with, an anterior collar; seldom constricted behind the middle, or if so constricted then with its margins carinate; lateral margins of the pronotum carinate, but not or very slightly laminately ampliated.

This is the largest division of the Aphaninæ and is universally distributed, though the majority of the known genera and species belong to the Palæarctic Region—a fact, however, which probably only represents the greater activity of collectors in that region.

To arrange the *Rhyparochromaria* generically is a work of no little difficulty. The species are not only small, but frequently received in a mounted or carded condition, which renders the examination of some characters practically impossible. Those, however, relied upon in the following synopsis should make the discrimination of the British Indian genera a work requiring little trouble, and it must be remembered that we are now dealing exclusively with this fauna.

Synopsis of Genera.

A. Head distinctly exserted; eyes inserted at some distance from anterior margin of pronotum .... PRIMIERUS, p. 60.

B. Head not exserted, immersed to about the eyes.

 a. Head including eyes much more than half the width of pronotum at base.

  a. Pronotum transversely constricted.

   a'. Pronotum constricted near middle.

    a^2. Corium angulated on apical margin; antennæ not clavate .... RHODIGINUS, p. 62.

    b^2. Corium with apical margins straight; antennæ with third and fourth joints clavate .... APPOLONIUS, p. 62.

   b'. Pronotum constricted nearer posterior than anterior margin .... PROSTEMMIDEA, [p. 63.

  b. Pronotum not transversely constricted.

   a'. Eyes touching anterior margin of pronotum .... BUDÆUS, p. 76.

   b'. Eyes well separated from anterior margin of pronotum .... CRITOBULUS, p. 77.

 b. Head including eyes not half width of pronotum at base or not much more than half.

  a. Pronotum considerably or distinctly longer than half the width at base.

   a'. Pronotum about as long as broad; head narrower than anterior margin of pronotum .... POLYCRATES, p. 64.

   b'. Pronotum not so long as broad.

    a^2. Head much narrower than anterior margin of pronotum .... BOSBEQUIUS, p. 64.

    b^2. Head with eyes as wide, or scarcely as wide, as anterior margin of pronotum.

     a^3. Fourth joint of antennæ as long as second or longer.

      a^4. Second and third joints of rostrum subequal in length .... LACHNOPHORUS, [p. 68.

      b^4. Second joint of rostrum a little longer than third .... LAMPRODEMA, p. 71.

c^2. Head with eyes a little wider than anterior margin of pronotum.
b^3. Fourth joint of antennæ shorter than second . . . . MIZALDUS, p. 68.
b. Pronotum very little longer than half the width at base.
a'. Pronotum transversely constricted.
a^2. Lateral margins of pronotum strongly sinuate at region of constriction.
a^3. Scutellum much shorter than half the length of abdomen.
a^4. Antennæ robust, antennal joints almost uniformly thick . . . . . . SINIERUS, p. 65.
b^4. Antennæ slender, apical joint incrassated . . . . ENTISBERUS, p. 66.
b^3. Scutellum very large, nearly half as long as abdomen . . . . LEMNIUS, p. 66.
b^2. Lateral margins not, or obscurely, sinuate at region of constriction.
c^3. Scutellum excavated . . . . ARRIANUS, p. 74.
d^3. Scutellum not excavated.
a'. Corium with veins very prominent; clavus linearly marked, not punctate . . . . SUFFENUS, p. 75.
b'. Corium and clavus punctate.
a^2. Posterior margin of pronotum concavely sinuate.
a^3. Scutellum only slightly longer than broad . . . . CLIGENES, p. 72.
b^3. Scutellum distinctly longer than broad . . . . PERITRECHUS, [p. 75.
b^2. Posterior margin of pronotum truncate . . . . TROPISTETHUS, [p. 70.
b'. Pronotum not transversely constricted.
a^2. Lateral pronotal margins sinuate, posterior pronotal margin concave . THEBANUS, p. 67.
b^2. Lateral pronotal margins not sinuate, posterior pronotal margin truncate . DINIELLA, p. 73.

Genus **PRIMIERUS**.

Primierus, *Dist. A. M. N. H.* (7) viii, p. 477 (1901).

Type, *P. bispinus*, Motsch.

Distribution. Oriental Region.

Head moderately long and slender, almost as long as the pronotum, pointed in front, the central lobe produced before the lateral lobes; antennæ with the basal joint stout, reaching for about half its length from the apex of the head, second longest and slender, third slender, shorter than second, and very slightly clavate at apex, fourth slightly thickened, about as long as third or a little shorter; rostrum about reaching the posterior coxæ, basal joint shorter than the head. Pronotum with a narrow collar, strongly constricted near middle, the anterior lobe moderately

globose and a little shorter than the posterior lobe; posterior margin before scutellum concave, lateral angles distinctly spinous, the spines directed backwards. Other characters generally as in *Prosomœus*, Scott (of Japan), from which *Primierus* differs by the longer rostrum, the spinous lateral angles of the pronotum, and by having the intermediate and posterior femora more slender, not apically clavate, and both without spines.

780. **Primierus bispinus**, *Motsch.* (Plociomerus) *Bull. Soc. Nat. Mosc.* 1863, p. 81; *Dist. A. M. N. H.* (7) viii, p. 477 (1901).

Brownish-ochraceous; apex of rostrum, apical joint of antennæ and apex of third joint, extreme apices of the tibiæ and apices of the tarsal joints piceous or black; femora strongly punctured with castaneous; head and anterior lobe of pronotum brownish, posterior lobe of pronotum paler, very coarsely punctate, the posterior lateral margins luteous; scutellum with some castaneous markings and with a central luteous fascia on apical half; clavus and posterior claval margin longitudinally punctate, posterior lateral area of corium paler, punctate, and preceded by a small luteous lateral spot; membrane somewhat mottled with dark castaneous, a paler spot at apex and on each lateral margin. Pronotal lateral spines distinct and directed backwards.

Fig. 41.—*Primierus bispinus.*

Length 7; breadth between pronotal angles $1\frac{3}{4}$ millim.

Hab. Ceylon (*Lewis*).

781. **Primierus indicus**, *Dist. A. M. N. H.* (7) viii, p. 478 (1901).

Brownish-ochraceous; antennæ, head, anterior lobe of pronotum, scutellum, legs and abdomen beneath reddish-ochraceous; apical joint of antennæ and the sternum piceous, lateral margins of meso- and metasterna and the abdomen ochraceous.

Allied to the preceding species (*P. bispinus*), but differing by the scarcely punctate femora, different colour of the legs, &c.

Length 6 to 7; breadth between pronotal angles $1\frac{3}{4}$ millim.

Hab. Calcutta (*Atkinson Coll., Brit. Mus.*).

Genus RHODIGINUS.

Rhodiginus, *Dist. A. M. N. H.* (7) viii, p. 485 (1901).

Type, *R. dispar*, Walk.
Distribution. Ceylon.

Head triangular, rather narrowed in front; eyes large, prominent, somewhat exserted, their posterior margins almost touching the anterior margin of the pronotum; antennæ moderately robust, first and fourth joints thickest, third joint minute; pronotum strongly sinuated laterally, transversely impressed about centre, the lateral angles obtusely rounded, posterior margin slightly concave, anterior margin nearly straight; scutellum moderately gibbous at base, with a central carinate line on apical half; corium short and narrow, truncately angulate near inner angle, barely occupying two-thirds the length of the abdomen; membrane very large, extending broadly from the apex of the clavus to the apex of the abdomen; rostrum reaching the intermediate coxæ; anterior femora unarmed and only moderately incrassate.

782. **Rhodiginus dispar**, *Walk.* (Ophthalmicus) *Cat. Het.* v, p. 139 (1872); *Dist. A. M. N. H.* (7) viii, p. 485 (1901).
Geocoris ceylonicus, *Leth. & Sev. Cat. Gén. Hém.* ii, p. 169 (1894).

Fig. 42.
Rhodiginus dispar.

Head, anterior lobe of pronotum, scutellum and body beneath black; head greyishly pilose; apex of scutellum brownish-ochraceous; posterior lobe of pronotum, corium, antennæ, rostrum and legs ochraceous; first and fourth joints of antennæ and basal joint of rostrum more or less castaneous; posterior lobe of pronotum and the corium thickly brownly punctate; a cluster of punctures near inner angle of corium and the membrane fuscous; third joint of antennæ minute; lateral margins of pronotum carinate.

(The unique typical specimen has the antennæ abnormal, the short third joint being absent in the left antenna.)

Length $2\frac{1}{2}$ millim.

Hab. Ceylon (*Thwaites*); Pundaluoya (*Green*).

Genus APPOLONIUS.

Appolonius, *Dist. A. M. N. H.* (7) viii, p. 484 (1901).

Type, *A. cincticornis*, Walk.
Distribution. Ceylon.

Head (including outer margins of eyes) a little broader than anterior margin of pronotum; eyes prominent, globose; ocelli situate very near eyes; antennæ with the third and fourth joints prominently clavate, second, third and fourth joints

subequal in length, first a little shorter. Pronotum strongly and transversely constricted, the anterior lobe a little longer than the posterior lobe, but narrower and globose; posterior lobe with its lateral margins oblique; scutellum with the basal area moderately tumescent; anterior femora moderately incrassate.

783. **Appolonius cincticornis**, *Walk.* (Ophthalmicus) *Cat. Het.* v, p. 138 (1872); *Dist. A. M. N. H.* (7) viii, p. 484 (1901).

Fig. 43.—*Appolonius cincticornis.*

Head and anterior lobe of pronotum black; the posterior lobe dark castaneous, with its anterior lateral margins luteous; antennæ with the first and second joints luteous, with their bases and apex of the second joint pale castaneous, third and fourth joints castaneous, apex of fourth joint much paler; scutellum piceous; corium pale luteous, with the apex and a broken central transverse fascia castaneous; membrane pale cretaceous-white, with the veins brownish; legs ochraceous, tibiæ luteous.

Length $2\frac{3}{4}$ millim.

Hab. Ceylon (*Thwaites*).

Genus PROSTEMMIDEA.

Prostemmidea, *Reut. Ent. Month. Mag.* xxix, p. 252 (1893)

Type, *P. mimica*, Reut.

Distribution. British India.

Oblong; head inserted to the eyes, vertically deflected, with eyes a little narrower than anterior margin of pronotum; rostrum reaching the intermediate coxæ; antennæ with the first joint reaching the apex of the head; pronotum as broad as long, behind middle strongly constricted, lateral margins of anterior lobe moderately convex; scutellum longer than broad; anterior femora moderately incrassated, spined beneath.

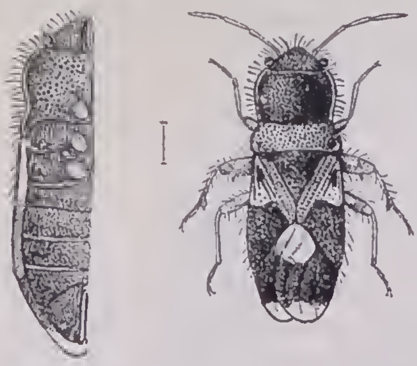

Fig. 44.—*Prostemmidea mimica.*

784. **Prostemmidea mimica**, *Reut. Ent. Month. Mag.* xxix, p. 253 (1893).

Black, shining, more or less setose; posterior lobe of pronotum ferruginous-red, the lateral angles marginally infuscated; corium very pale ochraceous; base of clavus, a subbasal discal spot, and the apical third black, the last distinctly divided in hue, the apical angle shining, the anterior area opaque; membrane black, a large basal spot

and the apical margins broadly white; antennæ, rostrum and legs pale testaceous; apices of femora more or less infuscated; posterior lobe of pronotum very strongly punctated.

Length 5 millim.

Hab. Bombay (*Wroughton*).

I am indebted to the courtesy of Dr. Bergroth for the opportunity of figuring this species.

Genus POLYCRATES.

Polycrates, *Stål, Hem. Afr.* ii, pp. 154 & 161 (1865); *id. En. Hem.* iv, p. 155 (1874).

Type, *P. consutus*, Germ., a South-African species.

Distribution. South Africa; British India.

Head much narrower than the anterior margin of the pronotum; anterior femora incrassate, distinctly spinous beneath; scutellum distinctly longer than broad; pronotum longer than broad, behind middle strongly constricted, anterior lobe about twice as long as posterior lobe; anterior tibiæ distinctly curved, their apices prominently ampliated.

785. **Polycrates nexus**, sp. n.

Fig. 45.
Polycrates nexus.

Black, shining; corium brownish-ochraceous, crossed beyond middle by an irregular transverse fascia connected with an angulate apical margin, black; membrane fuscous with an apical greyish spot; intermediate and posterior tibiæ ochraceous, their apices narrowly black, anterior tibiæ mutilated in specimen described; antennæ and rostrum brownish-piceous; anterior lobe of pronotum with the anterior and lateral margins narrowly brownish-ochraceous, posterior lobe finely granulate; scutellum with a narrow central longitudinal impression; anterior femora strongly spined beneath.

Length 7 millim.

Hab. Kangra Valley (*Dudgeon*). Burma; Minhla (*Comotto*).

Genus BOSBEQUIUS, nov.

Type, *B. latus*, Dist.

Distribution. Tenasserim.

Broadly subovate; head small, conically produced, much narrower than anterior margin of pronotum; basal joint of antennæ not reaching apex of head, second joint a little the longest; first joint of rostrum extending beyond base of head; pronotum very large and broad, transverse impression indistinct, anteriorly subglobose, posterior margin moderately concave in front of scutellum, broader

than anterior margin, which is centrally truncately excavate, the angles prominent; lateral margins finely laminate; scutellum triangular; corium broad, longer than membrane; anterior femora very strongly incrassate.

786. **Bosbequius latus**, sp. n.

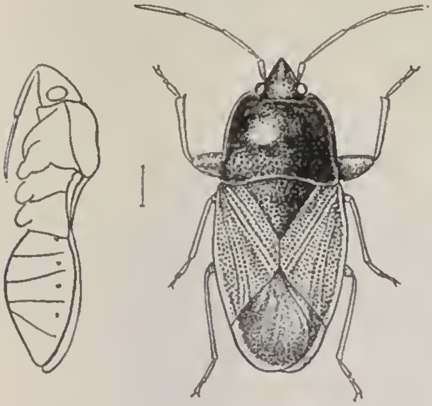

Fig. 46.
Bosbequius latus.

Head, pronotum, scutellum and body beneath black, shining; antennæ, posterior margin of pronotum, rostrum, lateral margins of sternum and femora castaneous; corium, tibiæ and tarsi ochraceous; membrane very pale fuliginous, subhyaline; head and anterior lobe of pronotum glabrous; posterior pronotal lobe, scutellum and corium somewhat coarsely punctate; membrane slightly passing abdominal apex.

Length 4 millim.

Hab. Tenasserim; Plapoo (*Fea*).

Genus **SINIERUS.**

Sinierus, *Dist. A. M. N. H.* (7) viii, p. 498 (1901).

Type, *S. capensis*, Dall., from South Africa.

Distribution. Ethiopian and Oriental Regions.

Head with eyes a little broader than anterior margin of pronotum; antennæ robust, moderately incrassate, basal joint passing the apex of head, third joint not longer than first; pronotum transversely constricted near middle, lateral margins convex, sinuate at area of constriction, each lobe slightly gibbous, posterior angles moderately rounded; scutellum a little broader than long, moderately excavate at base; legs unarmed; anterior femora not incrassate.

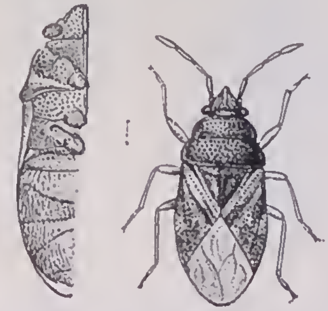

Fig. 47.—*Sinierus cingalensis.*

787. **Sinierus cingalensis**, sp. n.

Piceous; corium ochraceous, with an elongate spot near inner angle and the discal area beyond base suffused with piceous; membrane obscure ochraceous; femora castaneous, the tibiæ and tarsi stramineous; antennæ castaneous; head, pronotum and scutellum with a velvety appearance; antennæ and lateral margins of head and pronotum pilose.

Length 2 millim.

Hab. Ceylon; Peradeniya (*Green*). Burma; Karennee (*Fea*).

Genus ENTISBERUS.

Entisberus, *Dist. A. M. N. H.* (7) xi, p. 74 (1903).

Type, *E. archetypus*, Dist.

Distribution. Ceylon.

Subelongate; head triangular, narrowly produced anteriorly, where it is bicarinate; eyes moderately large and prominent, somewhat exserted, their posterior margins almost touching the anterior margin of the pronotum; antennæ robust, apical joint thickened, third joint about as long as first; rostrum almost reaching the intermediate coxæ, basal joint a little shorter than head; pronotum with the posterior lobe much wider than the anterior lobe, central constriction well defined, anterior lobe subglobose, posterior angles subprominent and obtusely subacute, their basal margins obliquely excavate; scutellum with a discal cruciform elevation; corium extending to more than half the length of abdomen, the apical margin slightly rounded; membrane slightly passing the apex of abdomen; femora unarmed.

788. **Entisberus archetypus**, *Dist. A. M. N. H.* (7) xi, p. 74 (1903).

Head, anterior lobe of pronotum and body beneath black; posterior lobe of pronotum and corium ochraceous, punctured with brown, the first thickly punctate, the corium with the clavus, claval margin, irregular transverse fascia and apex thickly punctate, enclosing a small pale spot at inner angle and another on lateral margin a little before apex; scutellum piceous, coarsely punctate, the cruciform carination ochraceous; membrane hyaline; antennæ, rostrum and legs pale stramineous, apical joint of antennæ roseate; coxæ black; lateral angles of metasternum and anal segment castaneous: body beneath sparingly and finely greyishly pilose. Antennæ with the first joint a little thickened, second joint slender, about as long or a little longer than the first, third shorter than second, thickened towards apex, fourth shortest, stoutest, globose.

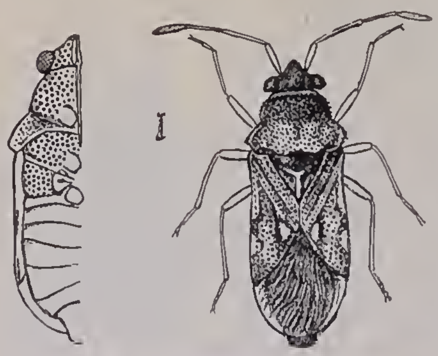

Fig. 48.—*Entisberus archetypus.*

Length 3 millim.

Hab. Ceylon; Peradeniya (*Green*).

Genus LEMNIUS, nov.

Type, *L. ovatus*, Dist.

Distribution. Ceylon.

Elongate, ovate; head triangular, narrowly produced anteriorly; antennæ with the first joint passing the apex of the head, a little thickened, second longest, fourth not thickened; rostrum reaching posterior coxæ, first joint not extending to base of head; pronotum narrowed from base to apex, transversely constricted, the disk

sulcate, lateral angles tuberculously subprominent; scutellum very large, nearly half as long as abdomen, with a discal cruciform elevation; corium extending to more than half the length of abdomen, the apical margin straight; membrane slightly passing the apex of abdomen; femora unarmed.

789. **Lemnius ovatus**, sp. n.

Fig. 49.—*Lemnius ovatus.*

Head, anterior lobe of pronotum, scutellum and body beneath shining piceous; posterior lobe of pronotum and femora castaneous; corium ochraceous, darkly punctate, the apical margin (broadest near inner angle) castaneous; tibiæ and tarsi ochraceous; antennæ piceous, second and fourth joints ochraceous; head, pronotum and scutellum coarsely punctate, corium more sparingly punctate; membrane dark violaceous, its apical margin pale hyaline; pronotum foveately sulcate on disk, its lateral angles subprominent and ochraceous.

Length 4 millim.

Hab. Ceylon (*Lewis*).

Genus **THEBANUS**, nov.

Type, *T. politus*, Dist.

Distribution. Burma.

Allied to *Lemnius*, but the pronotum not transversely constricted; scutellum smaller, not nearly half so long as abdomen, with a discal cruciform elevation on each side of which the lateral areas are somewhat convexly gibbous.

790. **Thebanus politus**, sp. n.

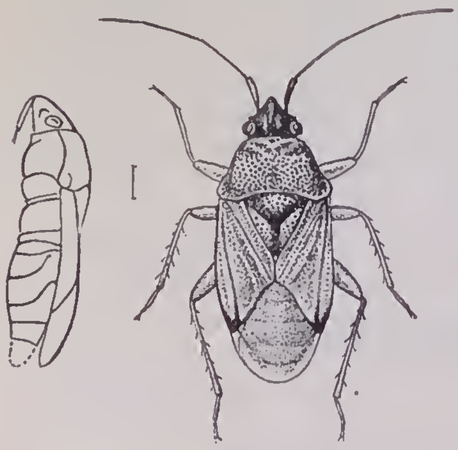

Fig. 50.—*Thebanus politus.*

Head black; antennæ castaneous; pronotum ochraceous, brownly punctate, a subanterior transverse fascia and central longitudinal line castaneous; scutellum ochraceous, brownly punctate, with a central arcuate dark castaneous fascia reaching apex and basal angles, two oblique discal pale ochraceous impunctate spots; corium stramineous, the apical angles fuscous; membrane subhyaline; sternum castaneous; abdomen ochraceous; lateral and posterior margins of sternal segments and legs pale luteous; head, pronotum and

scutellum coarsely punctate, corium more finely punctate; centra sulcation to pronotum very indistinct.

Length 3 millim.

Hab. Burma; Karennee (*Fea*).

Genus MIZALDUS.

Mizaldus, *Dist. A. M. N. H.* (7) viii, p. 483 (1901).

Type, *M. dimidiatus*, Walk., from New Guinea.

Distribution. Ceylon; New Guinea.

Head triangular, long, immersed to about the eyes; ocelli situate close to eyes and well separated from base; antennæ with the first joint moderately clavate and considerably passing the apex of head, second joint longest, fourth a little shorter than third and moderately thickened; pronotum with the anterior margin narrower than the outer margins of eyes, its anterior angles a little prominent, a little more than half the width of base, the lateral margins very strongly sinuate, transversely constricted near centre, the anterior lobe moderately globose, the posterior lobe with its basal margin moderately concave before the scutellum; lateral angles excavated; scutellum moderately gibbous at basal area, its apex acute; corium a little narrower than the abdomen, the margins of which are exposed and a little prominent, strongly sinuate near base and widened posteriorly; rostrum with the basal joint a little shorter than the head; second joint longer than the third.

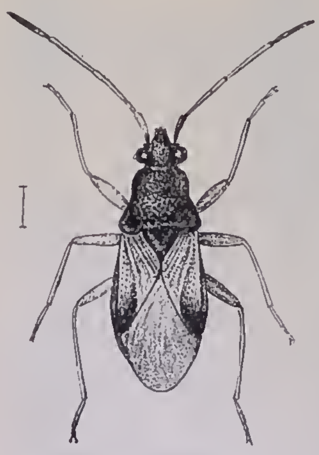

Fig. 51.—*Mizaldus lewisi.*

791. **Mizaldus lewisi**, *Dist. A. M. N. H.* (7) viii, p. 484 (1901).

Black; corium creamy-white, with an apical angular black spot, membrane pale greyish-hyaline: body beneath black; legs and antennæ ochraceous, femora and basal joint of antennæ pale castaneous, apical joint of antennæ fuscous. Head, pronotum and scutellum coarsely punctate; clavus and lateral area of corium more sparingly punctate.

Length 4 millim.

Hab. Ceylon (*Lewis*). Burma; Bhamo, Karennee (*Fea*).

Genus LACHNOPHORUS.

Lanchnophorus (misprint), *Reut. Ent. Tidskr.* viii, p. 98 (1887).

Type, *L. singalensis*, Dohrn.

Distribution. Madagascar and British India.

Body oblong, subparallel, pubescent, and above longly pilose;

head triangular, with eyes about equal in width to anterior margin of pronotum; ocelli placed close to anterior pronotal margin; rostrum extending to middle of mesosternum, first joint shorter than head; antennæ with the first joint passing apex of head, fourth joint as long as the second or longer; pronotum transverse, anteriorly slightly narrowed, anterior margin sinuate, lateral margins laminate and suberect and rounded at apices, transverse impression nearer posterior than anterior margin; scutellum elongately triangular; anterior femora incrassate, distinctly spined beneath near apices, two of the spines usually large.

a. *Antennal joints moderately uniform; third and fourth joints not prominently incrassate.*

792. **Lachnophorus singalensis**, *Dohrn* (Rhyparochromus), *Stett. ent. Zeit.* xxi, p. 404 (1860).
Rhyparochromus semilucens, *Walk. Cat. Het.* v, p. 99 (1872).
Lachnophorus guttulatus, *Reut. Ent. Tidskr.* viii, p. 99 (1887).
Rhyparochromus convelatus, *Dist. A. M. N. H.* (7) viii, p. 485 (1901).

Head, antennæ, pronotum, scutellum, rostrum, body beneath and legs piceous; lateral margins of pronotum, coxæ, posterior margin of metasternum, extreme bases of tibiæ and the tarsi ochraceous; corium ochraceous with lineate brown punctures, apical half piceous, containing a transverse greyish-white fascia; membrane piceous, its apical half irrorated with pale brownish. Antennæ moderately robust, second, third and fourth joints almost subequal in length; pronotum with a distinct transverse impression, anterior lobe moderately convex, posterior lobe somewhat thickly punctate; scutellum long, finely punctate, with a central carinate line, obsolete on basal half; lateral margins of head and pronotum distinctly longly pilose. In some specimens, as in the form described by Walker as *semilucens*, the body beneath is pale castaneous.

Fig. 52.—*Lachnophorus singalensis.*

Length 5 to 8 millim.

Hab. Bombay (*Coll. Dist.*); Bor Ghát (*Dixon*). Ceylon (*fide Dohrn*).—Madagascar (*fide Reut.*).

Dr. Bergroth kindly forwarded me a Bombay specimen which he had compared and identified with Reuter's Madagascar type.

793. **Lachnophorus noctis**, sp. n.

Piceous; apical joint of antennæ greyishly pilose; posterior lobe of pronotum and veins of corium obsoletely castaneous; legs

black, shining: body beneath more palely piceous; antennæ slender, third and fourth joints not incrassate; corium and posterior area of pronotum somewhat coarsely punctate; clavus longitudinally punctate.

Length 6½ millim.

Hab. Burma; Karennee (*Coll. Dist.*).

b. *Antennæ with the third and fourth joints prominently incrassate.*

794. **Lachnophorus leucospilus**, *Walk.* (Rhyparochromus) *Cat. Het.* v, p. 98 (1872).

Piceous; apical area of corium black, containing a transverse whitish spot; a pale whitish spot at apex of membrane; basal lateral margin of corium ochraceous; antennæ very robust, third and fourth joints distinctly incrassate; head finely greyishly pilose; posterior lobe of pronotum sparingly but coarsely punctate.

Length 6 millim.

Hab. Sylhet (*Bowring*). Burma; Karennee (*Fea*).

795. **Lachnophorus merula**, sp. n.

Black, opaque; a spot on lateral margins of pronotum at the region of the constriction and basal lateral area of corium ochraceous, a spot before apex creamy-white; clavus piceous; antennæ robust, third and fourth joints distinctly clavate; pronotum sparingly coarsely punctate, the lateral margins a little upwardly carinate and subampliate, transversely constricted a little behind middle; apex of scutellum distinctly carinate; clavus longitudinally punctate; corium (excluding lateral margin) sparingly punctate.

Length 6½ millim.

Hab. Burma; Karennee.

Genus TROPISTETHUS.

Tropistethus, *Fieb. Eur. Hem.* pp. 48 & 184 (1861); *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 52.

Type, *T. holosericeus*, Scholtz, a Palæarctic species.

Distribution. Palæarctic, Oriental, and Neotropical Regions.

Differs principally from *Lachnophorus* and *Rhyparochromus* by the anterior femora being only shortly and regularly spinous near apex, not also provided with a single prominent spine; second joint of the rostrum much longer than the third; the pronotum is also shorter.

796. **Tropistethus indicus**, *Dall.* (Aphanus) *List Hem.* ii, p. 559 (1852); *Dist. A. M. N. H.* (7) viii, p. 497 (1901).

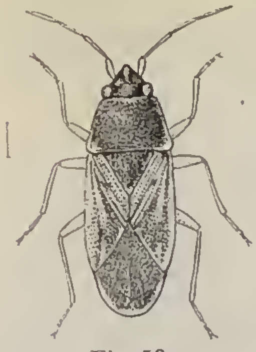

Fig. 53.
Tropistethus indicus.

Head, thorax and scutellum pitchy-black; corium brownish-testaceous, punctured, pubescent, with a triangular brown spot at the inner apical angle; membrane brownish: body beneath pitchy; legs pale yellow; rostrum pale yellow; antennæ testaceous with the last joint yellow. (*Dallas.*)

Length 4 millim.

Hab. "North India" (*Capt. Boys*).

Genus LAMPRODEMA.

Lamprodema, *Fieber, Eur. Hem.* pp. 48 & 184 (1861); *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 53.

Type, *L. maura*, Fabr., a Palæarctic species.

Distribution. Palæarctic, Oriental, Australasian, and Neotropical Regions.

Pronotum not depressed posteriorly, strongly transverse; clavus somewhat distinctly punctate in four longitudinal series; second joint of rostrum very slightly longer than third joint.

797. **Lamprodema tineoides**, *Dist. A. M. N. H.* (7) viii, p. 500 (1901).

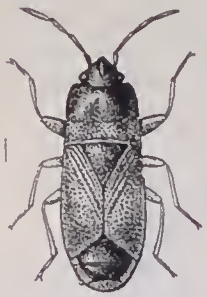

Fig. 54.—*Lamprodema tineoides.*

Dark castaneous; head, anterior half of pronotum and scutellum black; antennæ, posterior margin and apical angles of pronotum, basal margins of corium, tibiæ, tarsi and apices of femora brownish ochraceous; apical joint of antennæ infuscated; head, anterior area of pronotum and the scutellum finely punctate; posterior area of the pronotum and the corium coarsely punctate; membrane somewhat rudimentary, obscure greyish; apex of exposed abdomen black.

Length $2\frac{1}{2}$ millim.

Hab. Ceylon (*Lewis*).

I have placed this species in the genus *Lamprodema*, though the characters of the head including eyes being much narrower than the anterior margin of the pronotum, combined with the rudimentary membrane, almost warrant the foundation of a new genus for its reception.

Genus CLIGENES.

Cligenes, *Dist. Biol. Centr.-Amer., Rhynch.* i, p. 405 (1893); *Bergr. Rev. d'Ent.* xiv, p. 142 (1895).
Salacia, *Stål, En. Hem.* iv, p. 156 (1874), nom. præocc.

Type, *C. diluticornis*, Stål, a Brazilian species.

Distribution. Neotropical, Nearctic, Oriental, Ethiopian, and Australasian Regions.

Head of ordinary size, antennæ inserted near the eyes, basal joint passing the apex of the head; basal joint of rostrum not longer than basal joint of antennæ; pronotum short, transverse, base broad, nearly twice as broad as head including eyes, near or behind middle obsoletely transversely impressed, lateral margins near middle slightly sinuated; scutellum not, or a little, longer than broad; corium with the apical margin straight or profoundly sinuate.

a. *Pronotum with the transverse impression nearer to the posterior than to the anterior margin.*

798. **Cligenes signandus**, *Dist.* (Salacia) *Ann. Soc. Ent. Belg.* 1903, p. 46.

Stramineous; anterior lobe of pronotum and scutellum (excluding apex) castaneous; head piceous, greyishly pilose; a spot at lateral angles of pronotum, a spot at centre of lateral margin to corium and the apical angle of same black; membrane pale fuscous, the margins pale stramineous: body beneath castaneous, legs pale luteous; antennæ brownish ochraceous, apices of the joints luteous; posterior pronotal lobe and the corium sparingly but coarsely punctate; apical margin of corium straight.

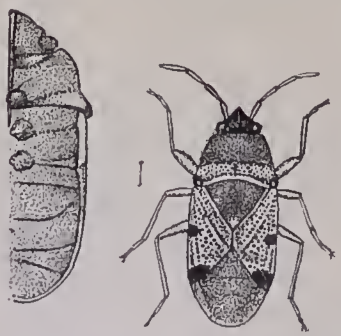

Fig. 55.—*Cligenes signandus.*

Length $2\frac{1}{3}$ millim.

Hab. Ceylon (*Green*).

799. **Cligenes patricius**, sp. n.

Head and posterior lobe of pronotum castaneous; anterior pronotal lobe ochraceous with a central longitudinal castaneous fascia; scutellum piceous, its apex luteous; corium very pale stramineous, its apical angle fuscous, and with a small somewhat obsolete fuscous spot at about centre of lateral margin; membrane fuliginous, its margins very pale stramineous: body beneath piceous; legs stramineous; antennæ with the basal joint ochraceous, remaining joints brownish ochraceous, first and third, and second

and fourth joints subequal in length; apical margin of corium straight.

Length $2\frac{1}{2}$ millim.

Hab. Burma; Karennee (*Fea*).

b. *Pronotum with the transverse impression a little nearer to the anterior than to the posterior margin.*

800. **Cligenes picturatus**, *Dist.* (Salacia) *Biol. Centr.-Am., Rhynch.* i, p. 406, pl. xxxv, f. 19 (1893); *Bergr. Rev. d'Ent.* xiv, p. 143 (1895).

Head, pronotum and scutellum castaneous, apex of scutellum and the corium ochraceous, the last with a small spot near the centre of lateral margin and the apex dark castaneous; membrane dull greyish; antennæ variable in hue, the first and fourth joints usually ochraceous: body beneath castaneous; legs ochraceous; antennæ with the second joint slightly longest, third and fourth subequal in length; clavus longitudinally punctate; the punctures on the corium are principally submarginal and subclaval; pronotum and scutellum coarsely punctate; apical margin of corium straight.

Var. *a.* Head, pronotum and scutellum black.

Length 3 millim.

Hab. Assam; Mungphu (*Atkinson*).—Originally described from Central America.

Genus DINIELLA.

Dinia, *Stål, En. Hem.* iv, p. 156 (1874). nom. præocc.
Diniella, *Bergr. Rev. d'Ent.* xii, p. 202 (1893), n. nom.

Type, *D. glabrata*, Stål, from the Philippines.

Distribution. Ethiopian and Oriental Regions.

Head large, as long or nearly as long as the pronotum; antennæ long, first joint not passing the apex of the head, third distinctly longer than first; basal joint of rostrum distinctly longer than basal joint of antennæ: pronotum not transversely impressed, and less broadened posteriorly than in *Salacia*.

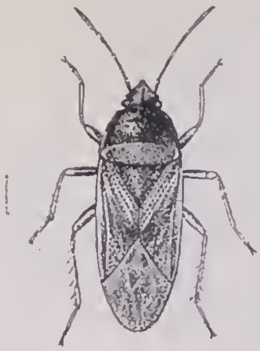

Fig. 56.
Diniella sevosa *.

801. **Diniella sevosa**, *Dist.* (Dinia) *A. M. N. H.* (7) viii, p. 497 (1901).

Body above shining, oleaginous; head, pronotum, scutellum and body beneath black; posterior margin of pronotum and the femora castaneous; corium brownish ochraceous, with a discal castaneous patch; extreme apices of femora, the tibiæ and tarsi ochraceous; antennæ brownish-ochraceous, the apices of the first, second and third joints ochraceous; a lineate spot on each side of clavus near apex, and lateral margin of corium, luteous; antennæ with

* Owing to the deflected position of the head in the typical specimen figured, the artist has been unable to show its relative length to the pronotum.

the second, third, and fourth joints almost equal in length; pronotum glabrous, scarcely punctate; scutellum obscurely punctate; corium, excluding the lateral margins, distinctly punctate; tibiæ with their bases castaneous and clothed with long spinous hairs.

Length 4 millim.

Hab. Ceylon (*Lewis*).

802. **Diniella trabeata**, *Dist.* (Dinia) *A. M. N. H.* (7) viii, p. 498 (1901).

Above shining, glossy; head, pronotum, scutellum and body beneath very dark castaneous; apex of head, antennæ, eyes, anterior margin and lateral angles of pronotum, apex of scutellum, corium and legs ochraceous; corium thickly and somewhat darkly punctate; membrane hyaline. Scutellum faintly wrinkled and obscurely punctate; antennæ with the second joint much longer than the third, remainder mutilated.

Length 4 millim.

Hab. India; Nagpur (*Coll. Dist.*). Burma; Rangoon (*Fea*).

Genus **ARRIANUS**, nov.

Type, *A. excavatus*, Dist.

Distribution. Sikhim.

Elongate, subovate; head narrowly pointed anteriorly, eyes touching anterior margin of pronotum, basal joint of antennæ scarcely passing apex of head; basal joint of rostrum shorter than second joint; pronotum a little broader behind than in front, transversely constricted behind middle, anterior lobe moderately globose; scutellum elongate, foveate from near base to apex: corium extending to about three-fourths the length of abdomen; legs moderate.

A genus to be recognized by the extraordinary structure of the scutellum.

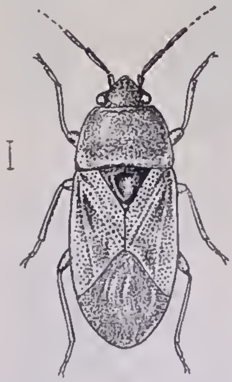

Fig. 57.
Arrianus excavatus.

803. **Arrianus excavatus**, sp. n.

Pale castaneous; lateral angles and posterior margin of pronotum, corium, membrane, tibiæ and tarsi ochraceous; antennæ pilose, second joint longest; posterior pronotal lobe and base of scutellum somewhat coarsely punctate; disk of corium finely punctate; membrane slightly passing abdominal apex.

Length $2\frac{1}{2}$ millim.

Hab. Sikhim; Mungphu.

Genus SUFFENUS, nov.

Type, *S. fusconervosus*, Motsch.

Distribution. Burma; Ceylon.

Head immersed to eyes, and, including them, equal in width to anterior margin of pronotum; antennæ short, robust, first joint about reaching apex of head; pronotum broader than long, posterior margin nearly twice as broad as anterior margin, transversely constricted near middle, posterior lateral angles rounded; scutellum somewhat small, subtriangular; corium with the veins very prominent, clavus with longitudinal lines; anterior femora incrassated; rostrum with the second joint longer than the first, which does not quite reach the base of head; lateral margins of the corium a little convex.

804. **Suffenus fusconervosus**, *Motsch.* (Rhyparochromus) *Bull. Soc. Nat. Mosc.* 1863, p. 79.

Dark ochraceous, rufous; corium pale creamy-white, with the veins, a spot on lateral margins and the apical angle rufous-ochraceous; between the last-mentioned markings is a distinct creamy-white spot; membrane creamy-white, suffused with pale ochraceous; scutellum darker rufous-ochraceous, punctate; pronotum transversely impressed near middle, where it is a little paler in hue, with a small creamy-white spot on each lateral margin; body beneath rufous-ochraceous (*imperfectly seen in a carded specimen*); legs luteous.

Fig. 58. *Suffenus fusconervosus.*

Length $2\frac{1}{2}$ millim.

Hab. Ceylon; Colombo (*fide Motschoulsky*). Burma; Rangoon (*Coll. Dist.*).

Genus PERITRECHUS.

Peritrechus, *Fieber, Eur. Hem.* pp. 48 & 183 (1861); *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 54; *Saund. Hem. Het. Brit. Islds.* p. 95 (1892).

Subg. Pasatus, *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 54.

Type, *P. angusticollis*, Sahlb., a Palæarctic species.

Distribution. Nearctic, Palæarctic, and Oriental Regions.

Head moderately large, narrowed in front of eyes, which slightly project beyond the anterior pronotal angles; rostrum reaching the intermediate coxæ; pronotum trapeziform, lateral margins behind the middle narrowly foliaceous, posterior margin concavely sinuate; anterior femora more or less incrassated, armed beneath with a few small spines.

805. **Peritrechus æruginosus**, sp. n.

Head, anterior lobe of pronotum and scutellum black; scutellum with two discal spots and the apex ochraceous; posterior lobe of pronotum and the corium dull brownish-ochraceous, darkly punctate and much suffused with piceous, corium with some distinct paler spots, principally on apical area; membrane rusty-brown: body beneath piceous; legs castaneous, the apices and undersides of femora, and the tibiæ and tarsi ochraceous; apices of posterior tibiæ distinctly piceous; antennæ and rostrum piceous; second and fourth joints of antennæ longest and subequal in length, third a little longer than first; lateral margins of the scutellum near base a little gibbous.

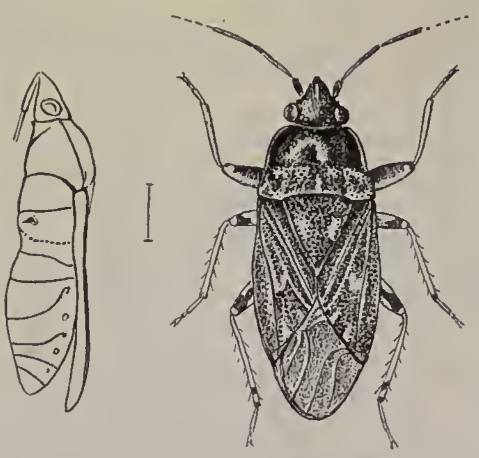

Fig. 59.—*Peritrechus æruginosus.*

Length 5 millim.

Hab. Burma; Palon, Mandalay (*Fea*).

Genus BUDÆUS, nov.

Type, *B. brevipennis*, Dist.

Distribution. India, Seychelles.

Subelongate; head strongly deflected anteriorly, about as long as the pronotum; rostrum nearly reaching the intermediate coxæ, first joint a little shorter than second; antennæ with the first joint just passing apex of head, which is narrowed in front, eyes placed near the anterior margin of pronotum; pronotum moderately gibbous, lateral margins nearly straight, slightly convexly narrowed near anterior angles, anterior and posterior margins straight; scutellum narrow, elongate; hemelytra only reaching about half the length of abdomen; connexivum moderately upraised; legs moderate, anterior femora incrassate.

This genus is founded on six apparently undeveloped specimens. The genus is allied to *Ischnocoris* and *Macrodema.* The species described by Walker from the Seychelles under the name *Rhyparochromus circumcinctus* (Cat. Het. v, p. 97, 1872) I also consider belongs to *Budæus*.

806. **Budæus brevipennis**, sp. n.

Black, shining; antennæ, lateral margins of hemelytra, lateral

and apical margins of scutellum, acetabula, coxæ, legs and abdomen beneath luteous; abdomen above sanguineous, with some black spots beyond apex of hemelytra; head and pronotum glabrous, scutellum and hemelytra somewhat opaque; antennæ with the second joint slightly longer than either first or third joints.

Fig. 60.
Budæus brevipennis.

In some specimens the underside of the abdomen is piceous.

Length 3 to $3\frac{1}{2}$ millim.

Hab. United Provinces; Lohardaga (*Atkinson Coll., Brit. Mus.*).

Genus **CRITOBULUS**, nov.

Type, *C. insignis*, Dist.

Distribution. Assam.

Elongately subovate; head large, broad, including eyes as wide as long; eyes well separated from the anterior margin of the pronotum; antennæ with the basal joint shorter than the head and much shorter than the second joint; rostrum about reaching the posterior coxæ, first joint much shorter than head; pronotum not transversely impressed, with a distinct collar, the lateral margins acutely ampliated but not reflexed, the anterior margin rounded towards apex; scutellum broad, equilateral; hemelytra reaching about half the length of abdomen; anterior femora strongly spined beneath.

807. **Critobulus insignis**, sp. n.

Head, pronotum and scutellum piceous; apex of head and a spot in front of each eye and margins of pronotum (posterior margin broadest) luteous, the last marked with three piceous spots; corium luteous, the apex and some subbasal lines brownish-ochraceous; abdomen above piceous, connexivum alternately brown and luteous: body beneath castaneous; legs, rostrum and antennæ luteous, femora more or less tinged with castaneous, apices of tarsi piceous.

Fig. 61.
Critobulus insignis.

Length 4 millim.

Hab. Assam; Margherita.—Siamese Malay States.

Species of uncertain position.

Rhyparochromus brevis, Motsch. Bull. Soc. Nat. Mosc. 1863, p. 78.

Described from Ceylon, but I have failed to identify it.

Rhyparochromus ? crassiceps, Dohrn, Stett. ent. Zeit. xxi, p. 404 (1860).

Another species described from Ceylon, which has also baffled my efforts to recognize it from the description.

Division *APHANARIA*.

Beosaria, Gonianotaria, Lethæaria, Drymaria, *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, pp. 54, 58, 59; *id.* (part.) *En. Hem.* iv, p. 143 (1874).

Lateral margins of the pronotum laminately ampliated, rarely carinate; when they are carinate the basal joint of the antennæ is very largely extended beyond the apex of the head.

This division is much smaller than the preceding one (*Rhyparochromaria*), but, like it, is almost universally distributed. Our knowledge of its members is still fragmentary.

Synopsis of Genera.

A. Membrane near base obliquely transversely impressed, some veins transversely united. LETHÆUS, p. 87.
B. Membrane normal.
  a. Head acuminate, half as long as pronotum and in oblique line with it . . . . GONSALVUS, p. 93.
  b. Head of ordinary shape and size.
    a. Scutellum foveately impressed . . . . DRYMUS, p. 92.
    b. Scutellum not foveately impressed.
      a'. Head with eyes narrower than anterior margin of pronotum.
        *a*². Second joint of antennæ longest; posterior margin of pronotum more or less concavely sinuate; scutellum longer than broad . . . . GONATAS, p. 89.
        *b*². Second and third joints of antennæ subequal; posterior margin of pronotum straight; scutellum not longer than broad. . . . . ABDOLOMINUS, p. 90.
      b'. Head with eyes as broad as anterior margin of pronotum, but not broader.
        *a*³. Tibiæ with long bristles . . . . APHANUS, p. 79.
        *b*³. Tibiæ without bristles . . . . SCOLOPOSTETHUS, [p. 92.
      c'. Head with eyes broader than anterior margin of pronotum.
        *a*⁴. First joint of antennæ passing apex of head; posterior legs of ordinary size. . . . . DIEUCHES, p. 82.

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ROYAL ALBERT DOCKS.

b^1. First joint of antennæ not passing apex of head; posterior legs very long.
  a^5. Pronotum longer than broad; basal joint of posterior tarsi about three times longer than the other two joints together. . PŒANTIUS, p. 85.
  b^5. Pronotum not longer than broad; basal joint of posterior tarsi about twice longer than the other two joints together .... NAUDARENSIA, p. 86.

Genus APHANUS.

Aphanus, *Laporte, Ess. Hem.* p. 35, *Mag. Zool.* (1832); *Saund. Hem. Het. Brit. Islds.* p. 100 (1892).
Pachymerus, *Lep. & Serv. Encycl. Méth.* x, p. 322 (1825); *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 57; *id. En. Hem.* iv, p. 159 (1874), nec *Thunb. Coleopt.* 1805.
Rhyparochromus, *Fieber, Eur. Hem.* pp. 50 & 193 (1861).
Beosus, *Fieber, Eur. Hem.* pp. 51 & 196 (1861).
Subg. Microtomideus, Liolobus, Bleteogonus, Raglioides, *Reut. Rev. d'Ent.* iv, pp. 221, 224, 225 & 229 (1885).
Subg. Graptopeltus, Xanthochilus, Melandiscus, Raglius, *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 57.
Subg. Phorcinus and Naphius, *Stål. En. Hem.* iv, p. 160 (1874).

Type, *A. pedestris*, Panz. A Palæarctic species which has been found in South Africa.

Distribution. Palæarctic, Ethiopian, and Oriental Regions.

Head short, triangular; eyes nearly or quite touching the anterior margin of the pronotum; first joint of antennæ passing the apex of head; pronotum broad, depressed, its lateral margins laminately ampliated; scutellum large, subtriangular; clavus variously punctured; membrane fully developed; anterior femora moderately thickened and spined; basal joint of the posterior tarsi twice as long as the other two joints together.

a. *Pronotum with apices of lateral margins not prominently rounded.*

808. **Aphanus sordidus**, *Fabr.* (Cimex) *Mant.* ii, p. 302 (1787); *id.* (Lygæus) *Ent. Syst.* iv, p. 164 (1794); *Dall.* (Rhyparochromus) *List Hem.* ii, p. 566 (1852); *Stål* (Beosus), *Hem. Fabr.* i, p. 78 (1868); *Dist. A. M. N. H.* (7) viii, p. 501 (1901).
Var. Rhyparochromus pallens, *Dall. List Hem.* ii, p. 567 (1852); *Leth. & Sev.* (Dieuches) *Cat. Gén. Hém.* t. ii, p. 220 (1894).

Head, anterior lobe of pronotum, base of scutellum and sternum piceous or dark castaneous; abdomen beneath pale castaneous; posterior lobe of pronotum, scutellum (excluding base) and corium ochraceous, thickly punctured with brown, lateral margins of pronotum and corium with only a few coarse punctures;

apex of scutellum luteous; legs ochraceous, femora (excluding bases) and the tibiæ punctured and mottled with brown; membrane fuliginous, with a dark castaneous spot at base; antennæ pale ochraceous, apex of third joint infuscated, fourth joint fuscous, with its base luteous; rostrum ochraceous, the basal joint castaneous, the apex piceous; lateral and posterior margins of prosternum, two spots on posterior margin of metasternum, margins of acetabula and lateral marginal spots to abdomen luteous.

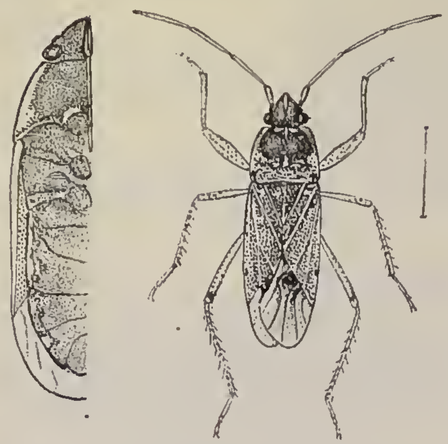

Fig. 62.—*Aphanus sordidus.*

Length 9 to 10 millim.

Hab. Assam; Nága and Khási Hills (*Chennell*). Bengal; Ranchi (*Irvine*), Calcutta. Bombay (*Leith*); Bor Ghát (*Dixon*). Ceylon (*Green*). Burma; Mandalay, Karennee, Prome (*Fea*), Minhla (*Comotto*), Tenasserim, Thagata (*Fea*).—China. Also recorded by Stål from Guinea.

The late Mr. L. de Nicéville, under date of February 27, 1901, informed me that this species was "damaging severely the 'Tilli' or Sesamum crop" near Calcutta.

809. **Aphanus lineosus,** *Dist. A. M. N. H.* (7) viii, p. 503 (1901).

Head, anterior lobe of pronotum, scutellum and body beneath piceous; posterior lobe of pronotum and the corium ochraceous, thickly brownly punctate; antennæ, lateral margins of pronotum, a narrow central line to the posterior pronotal lobe, two lineate spots near apex of scutellum, lateral margins of corium, two small spots on apical area of outer claval margin and the legs ochraceous; a spot at each lateral marginal angle of pronotum, two spots on apical marginal area of corium, basal halves of anterior femora and apical thirds of posterior femora piceous or black; rostrum and lateral margins of meso- and metasterna ochraceous; antennæ with the basal joint and apices of second, third and fourth joints piceous, second and fourth joints of the antennæ about subequal in length, third slightly shorter; punctures of the corium arranged in lineate series.

Length 6 millim.

Hab. Ceylon (*Lewis*). Burma; Bhamo (*Fea*).

b. *Pronotum with apices of lateral margins prominently rounded.*

810. **Aphanus orientalis**, sp. n.

Fig. 63.
Aphanus orientalis.

Dull ochraceous, coarsely brownly punctate; antennæ, central lobe of head, anterior disk of pronotum, scutellum and abdomen beneath pale castaneous; pronotum with the lateral and posterior areas thickly punctate, with scattered black dots on lateral margins; scutellum finely and thickly punctate; corium coarsely punctate, with scattered black dots on lateral margins and an oblique elongate black spot near inner angle; legs sparingly darkly punctate, anterior and posterior femora distinctly toothed beneath near apices; sternum coarsely darkly punctate; abdomen beneath thickly and finely punctate.

Length 8 millim.

Hab. Bengal; Ranchi (*Irvine*). Behar; Shahabád. Mysore (*Slater*, *Brit. Mus.*).

811. **Aphanus sparsus**, sp. n.

Piceous, finely sprinkled with ochraceous: antennæ piceous, apical joint fuscous with its extreme base luteous; pronotum broad, the lateral margins ampliated, a little recurved, ochraceous speckled with piceous; lateral margins of corium more prominently speckled with ochraceous; extreme apex of scutellum ochraceous; pro- and mesosterna ochraceous, thickly speckled with piceous; metasternum testaceous, with a sublateral ochraceous fascia speckled with piceous; abdomen testaceous; coxæ and legs ochraceous, femora speckled with piceous, posterior tibiæ fuscous; rostrum ochraceous; membrane pale fuliginous, basal area piceous, apical area mottled with fuscous.

Length 7 millim.

Hab. Bombay; Bor Ghát (*Dixon*).

812. **Aphanus latus**, sp. n.

Ochraceous, thickly brownly punctate; head, a large discal transverse spot on anterior area of pronotum, basal area of scutellum, body beneath and femora (excluding apices) black; apices of femora, the tibiæ and tarsi, lateral and posterior margins of prosternum, and apex of scutellum luteous; antennæ ochraceous, second joint slightly longer than the third, third longer than fourth; rostrum ochraceous, basal joint castaneous: body broad, pronotal lateral margins distinctly ampliated; scutellum long, subtriangular, depressed near base; membrane brownish-ochraceous.

Length $7\frac{1}{2}$ millim.

Hab. Bor Ghát (*Dixon*). Burma; Rangoon (*Coll. Dist.*).

Genus DIEUCHES.

Dieuches, *Dohrn, Stett. ent. Zeit.* xxi, p. 159 (1860); *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 58; *id. En. Hem.* iv, p. 159 (1874).
Beosus, *Bergr. Rev. d'Ent.* xii, p. 202 (1893).
Ischnotarsus, part., *Fieber, Eur. Hem.* pp. 50 & 191 (1861).
Metocus, *Scott, A. M. N. H.* (4) xiv, p. 433 (1874).

Type, *D. syriacus*, Dohrn, a Southern Palæarctic species.

Distribution. Palæarctic, Ethiopian, Oriental, and Australasian Regions.

First joint of the antennæ passing the apex of the head, not longer than the first joint of the rostrum; eyes extending a little beyond the anterior margin of the pronotum; pronotum long, more or less constricted near middle, the lateral margins carinate and laminate; legs long, anterior femora incrassate and spined beneath.

A. *Lateral margins of pronotum strongly sinuate.*

a. *Pronotum constricted behind middle.*

813. **Dieuches uniguttatus**, *Thunb.* (Pendulinus) *Hem. rostr. Cap.* iv, p. 6 (1822); *Stål, En. Hem.* iv, p. 162 (1874).
Pendulinus guttatus, *Thunb. Ins. Hem. tria gen.* p. 5 (1825).
Rhyparochromus bengalensis, *Dall. List Hem.* ii, p. 572 (1852).
Dieuches yeh, *Dohrn, Stett. ent. Zeit.* xxi, p. 160 (1860).

Piceous; antennæ, second and third joints of rostrum, tibiæ and tarsi brownish-ochraceous, apical joint of antenna piceous,

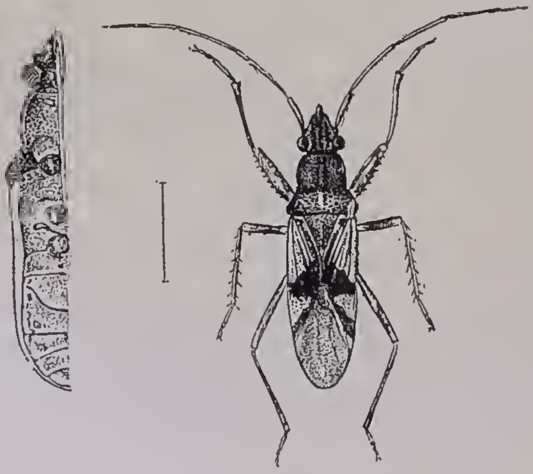

Fig. 64.—*Dieuches uniguttatus.*

broadly annulated with luteous near base; corium ochraceous, brownly punctate, lateral margins impunctate, a broad irregular transverse fascia near inner angle and the apical margin black; a

central elongate spot on posterior lobe of pronotum, extreme apex of scutellum, trochanters, bases of femora, posterior angle of metasternum and a marginal spot on fourth and fifth abdominal segments dull luteous; membrane fuliginous, speckled with ochraceous beyond base, and with a small ochraceous spot near the apical angle of corium; body pilose, lateral margins of pronotum and legs longly pilose. Pronotum strongly constricted near middle where the lateral margins are profoundly sinuate, anterior lobe subglobose; second, third and fourth antennal joints subequal in length.

Length 10 to 12 millim.

Hab. Assam; N. Khási Hills (*Chennell*). Bangalore (*Cameron*). Ceylon (*Green & Lewis*). Andamans (*Coll. Dist.*). Burma; Rangoon, Palon, Bhamo, Katha (*Fea*). Tenasserim; Malewoon (*Fea*).—Also recorded from several islands of the Malay Archipelago and from China.

b. *Pronotum centrally constricted.*

814. **Dieuches fuscans**, sp. n.

Piceous, opaque; abdomen castaneous; antennæ, rostrum, anterior and lateral margins (narrowly) and a central carina to posterior lobe of pronotum, basal halves of lateral margins, basal angles and some obscure discal spots to corium, legs and two lateral marginal spots to abdomen ochraceous; apical angle to corium widely obscure whitish, extreme apical margin piceous; femora, excluding bases, infuscated; pronotum transversely constricted about middle, the lateral margins strongly sinuate, thickly, somewhat coarsely punctate, anterior lobe subglobose; corium, excluding lateral margins, sparingly punctate; membrane ferruginous.

Length 13 millim.

Hab. Assam; Sibságar (*Peal*).

B. *Lateral margins of pronotum not sinuate.*

a. *Pronotum as long as broad.*

815. **Dieuches leucoceras**, *Walk.* (Rhyparochromus) *Cat. Het.* v, p. 101 (1872).

Dieuches modestus, *Horv. Termész. Füzetek*, 1889, p. 36.

Head black; pronotum as long as broad, piceous or dark castaneous, two small linear luteous spots on anterior margin, lateral margins somewhat strongly laminate, not sinuate, nearly straight, luteous, posteriorly black or castaneous, posterior lobe ochraceous, blackly punctate, the lateral angular areas black or castaneous; scutellum black, with two small medial spots and the apex ochraceous, in some specimens the two medial spots are obsolete; corium pale ochraceous, brownly punctate, lateral margin im-

punctate, a broad irregular transverse fascia near inner angle, apical angle and apical margin (narrowly) black; between the black fascia and apical margin the colour is pale luteous and has a macular appearance; membrane fuscous, with some pale apical spots; posterior angles of the metasternum, two lateral abdominal spots to abdomen, antennæ and legs luteous; apices of the three basal joints of antennæ, the fourth joint, basal and apical joints of rostrum, anterior femora (excluding base) and about apical thirds of intermediate and posterior femora black or castaneous.

Length 8 to 10 millim.

Hab. Kashmir (*vide Horvath*); Bombay (*Leith*); Bor Ghát (*Dixon*). Ceylon (*Templeton & Green*).—Bushire (*Cummings*).

b. *Pronotum not so long as broad.*

816. **Dieuches femoralis**, *Dohrn, Stett. ent. Zeit.* xxi, p. 405 (1860).
Rhyparochromus anticus, *Walk. Cat. Het.* v, p. 100 (1872).
Rhyparochromus siamicus, *Walk. Cat. Het.* v, p. 102 (1872).
Dieuches alternatus, *Horv. Termész. Füzetek*, 1889, p. 36.

Allied to the preceding species but differing by the narrower head, the basal joint, apices of second and third joints and fourth joint (excluding base) of antennæ piceous; pronotum not so long as broad, narrowed anteriorly, apices of lateral margins rounded; posterior lobe with a small central linear pale ochraceous spot; macular space between the transverse fascia and apical margin of corium subtriangular.

Length 9 to 10 millim.

Hab. Kashmir (*fide Horvath*). Sikhim (*Atkinson*). Assam; Margherita (*Doherty*); Nága Hills (*Chennell*). Ceylon (*Green & Lewis*). Burma; Palon, Bhamo (*Fea*). Tenasserim; Malewoon (*Fea*).—Batchian (*Brit. Mus.*).

817. **Dieuches punctipes**, *Dohrn, Stett. ent. Zeit.* xxi, p. 405 (1860); *Dist. A. M. N. H.* (7) viii, p. 504 (1901).
Rhyparochromus testaceipes, *Walk. Cat. Het.* v, p. 101 (1872).

Allied to the preceding species (*D. femoralis*, Dohrn) by the shape of the pronotum, but the colour of the antennæ and legs uniformly pale ochraceous, apices of the femora generally very palely or more darkly infuscated; extreme apices of the three basal joints and apical half of fourth joint of antennæ fuscous.

Length 8 to 8½ millim.

Hab. Ceylon (*Green*).

818. **Dieuches uniformis**, sp. n.

Head, pronotum, scutellum, membrane and body beneath black; corium dark castaneous; two small transverse linear spots near anterior margin of pronotum, lateral margins of pronotum and corium, two small obscure central basal marginal spots to

pronotum, two discal spots and apex to scutellum, two small spots on apical margin and a similar spot near inner angle of corium, a linear spot near base of clavus, legs, antennæ and rostrum luteous; apices of first, second, and third joints and apical half of fourth joint of antennæ, apex of rostrum, apices of femora and extreme apices of tibiæ piceous; lateral margin of pronotum nearly straight, not sinuate.

Length 9 millim.

Hab. Ceylon; Yatiyantota (*Green*).

819. **Dieuches pallidulus**, sp. n.

Head, pronotum, scutellum and body beneath very pale castaneous; legs, antennæ and rostrum ochraceous; corium luteous; clavus, a large transverse spot near inner angle and the apical angle very pale castaneous; lateral margins of pronotum, lateral margins of abdomen (excluding apical segment), and posterior angles of metasternum luteous; membrane dull ochraceous; basal joint of rostrum very pale castaneous. Head large and robust; pronotum deeply transversely constricted near middle, the lateral margins ampliately suberect, nearly straight, posterior lobe with a distinct central carination; scutellum moderately foveate on basal area, with a central carination, bifurcation from about centre to basal angles.

Length 12 millim.

Hab. Sind (*Coll. Dist.*).

Doubtful Species.

Dieuches abbreviatus, Scott (*Metocus*), A. M. N. H. (4) xiv, p. 434 (1874); Horv. Termész. Füzetek, iii, p. 147 (1879).

This species, described from Japan, is also recorded by Lethierry & Severin (Cat. Gén. Hém. ii, p. 219, 1894) as from India. I have failed, however, to find any corroboration of this habitat. It is closely allied to *D. uniguttatus*, Thunb.

Genus **PŒANTIUS.**

Pœantius, *Stål, Hem. Afr.* ii, pp. 154 & 163 (1865); *id. En. Hem.* iv, p. 159 (1874).

Type, *P. nigropictus*, Stål, a South-African species.

Distribution. Ethiopian and Oriental Regions.

Body moderately elongate; head deflected, immersed to eyes, a little longer than broad; rostrum reaching the intermediate coxæ; first joint of antennæ not reaching the apex of head; pronotum longer than broad, transversely constricted behind middle, lateral margins laminately carinate; scutellum longer than broad; legs long, anterior femora incrassate, finely spined beneath; posterior tarsi with the basal joint nearly three times longer than the other two joints together.

820. **Pœantius festivus**, *Dist. A. M. N. H.* (7) viii, p. 506 (1901).

Head, antennæ, pronotum, scutellum and anterior legs pale brownish castaneous; posterior lobe of pronotum a little paler, coarsely brownly punctate, and divided from the anterior lobe by a transverse ochraceous line; on both lobes are indications of a central pale longitudinal line; corium ochraceous, punctate; the clavus, subclaval margin, and apical third pale brownish castaneous, in the last is a small subapical marginal pale spot; membrane pale greyish, its inner angle brown: body beneath, intermediate and posterior legs piceous; bases of intermediate and posterior femora, extreme apical spot to abdomen, lateral margins of meso- and metasterna, posterior margin of metasternum, and anterior coxal spot ochraceous; apical joint of antennæ ochraceous, its apical half piceous.

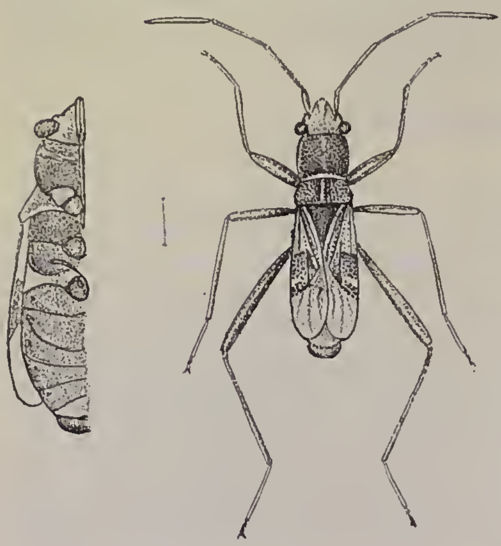

Fig. 65.—*Pœantius festivus.*

Length 4 to 4½ millim.

Hab. Calcutta (*Ind. Mus.*). Ceylon (*Green*).

Genus **NAUDARENSIA**, nov.

Type, *N. pedata*, Dist.

Distribution. Assam.

Allied to *Pœantius*, but with the pronotum not longer than broad, and transversely constricted about middle; head less deflected; rostrum reaching the intermediate coxæ, first joint of antennæ not reaching apex of head; legs long, anterior femora incrassate and armed with a strong spine beneath near apex; posterior tarsi with the basal joint about twice as long as the other two joints together; membrane not reaching the abdominal apex.

821. **Naudarensia pedata**, sp. n.

Head, anterior lobe of pronotum, scutellum, body beneath and legs black; posterior pronotal lobe ochraceous, thickly brownly punctate, lateral margins luteous; corium ochraceous; clavus and

subclaval area brownly punctate, lateral margin impunctate, sublateral area coarsely punctate, apical margin and inner angular area fuscous, the last with a distinct elongate fuscous spot; lateral margins of sternum and posterior margin of metasternum luteous; coxæ, bases of femora, bases of anterior tibiæ and extreme apex of anterior femora ochraceous; antennæ ochraceous, basal and apical joints infuscated; head and anterior lobe of pronotum glabrous; posterior lobe coarsely punctate; corium sparingly punctate; membrane not reaching apex of penultimate abdominal segment.

Fig. 66.—*Naudarensia pedata.*

Length $5\frac{1}{2}$ millim.

Hab. Assam; Shillong (*De La Touche*).

Genus LETHÆUS.

Lethæus, *Dall. List Hem.* ii, pp. 532 & 557 (1852); *Fieber, Eur. Hem.* pp. 50 & 193 (1861); *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 59; *id. En. Hem.* iv, p. 164 (1874).
Coptoneurus, *Puton, Ann. Soc. Ent. Fr.* 1869, p. 141.
Mimicus, *Dougl. & Scott, Ent. Month. Mag.* v, p. 65 (1868).

Type, *L. africanus*, Dall., a West-African species.

Distribution. Palæarctic, Ethiopian, Oriental, and Neotropical Regions.

Head rather small, triangular; antennæ rather more than half the length of body, first joint nearly as long as the head, second joint longest; rostrum reaching the posterior coxæ, basal joint a little shorter than the head; pronotum trapezoidal; scutellum rather large; membrane with four veins, of which the two inner are distorted near the base so as to touch the inner margin, the second and third and the third and fourth united near the middle by a transverse vein, forming two basal cells; anterior femora unarmed; tarsi three-jointed, basal joint as long as the other two joints together.

A. *Margins of pronotum unicolorous.*

822. **Lethæus assamensis**, *Dist. A. M. N. H.* (7) viii, p. 507 (1901).

Dark chocolate-brown; head black; a spot near each anterior angle of the pronotum, two small spots in clavus (one about centre and the other near apex), and two small central spots to corium (one on central disk and the other at apical margin) ochraceous; antennæ fuscous, apical half of third joint ochraceous, fourth joint

mutilated in specimen described; membrane pale brownish: body beneath and legs very dark castaneous; rostrum and tarsi brownish-ochraceous. Head opaque, impunctate; pronotum thickly punctate, with two transverse impressions (one angulated near anterior margin, the other straight at about one-third from apex); scutellum thickly punctate; corium more sparingly punctate, its lateral margin for more than half from base brownish-ochraceous and levigate.

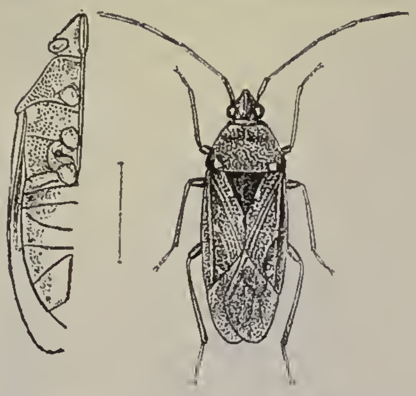

Fig. 67.—*Lethæus assamensis.*

Length 11 millim.

Hab. Assam; Nága Hills (*Doherty*).

823. **Lethæus indicus,** *Dall. List Hem.* ii, p. 558 (1852).

Head, pronotum and scutellum black; corium and body beneath dark castaneous; corium with a small luteous spot a little beyond the middle of the claval margin, a similar spot near centre of apical margin; membrane pale fuliginous; femora castaneous; tibiæ brownish-ochraceous; tarsi luteous; antennæ dull ochraceous; pronotum, excluding anterior disk, coarsely punctate; sternum thickly but less coarsely punctate; rostrum ochraceous, basal joint castaneous, extreme apex piceous.

Length 8 millim.

Hab. North Bengal (*Campbell, Brit. Mus.*). Burma; Rangoon, Palon (*Fea*).

Apparently a variable species; in some specimens there are two pale spots on the clavus; in others the antennæ are pale castaneous.

B. *Margins of pronotum narrowly ochraceous.*

a. *Corium without distinct subapical macular patch.*

824. **Lethæus extremus,** *Walk.* (Rhyparochromus) *Cat. Het.* v, p. 99 (1872); *Dist. A. M. N. H.* (7) viii, p. 506 (1901).
Rhyparochromus greeni, *Kirby, J. Linn. Soc., Zool.* xxiv, p. 100 (1891).

Head, pronotum and scutellum piceous, anterior lobe of pronotum more or less obscurely castaneous and very coarsely punctate, lateral and anterior margins of pronotum narrowly obscure ochraceous; corium castaneous, coarsely punctate, lateral and apical margins and some parts of the venation ochraceous; scutellum distinctly but somewhat sparingly punctate; membrane pale fuliginous: body beneath and legs castaneous, tibiæ and tarsi

ochraceous ; antennæ piceous, base of second joint castaneous, nearly apical half of third joint creamy-white.

Length 8 to 9 millim.

Hab. Ceylon (*Green*).—Walker's type was from Siam.

b. *Corium with distinct subapical pale macular patch.*

825. **Lethæus descriptus**, *Walk.* (Rhyparochromus) *Cat. Het.* v, p. 103 (1872).
Rhyparochromus alienus, *Walk. tom. cit.* p. 105.
Lethæus signatus, *Dist. A. M. N. H.* (7) viii, p. 506 (1901).

Head, pronotum, and scutellum piceous; pronotum with two small ochraceous spots on each side of posterior margin, and the lateral and anterior margins very narrowly ochraceous; corium ochraceous, punctured with brown, a spot near base, a large median patch, and the apex piceous, between the median patch and apex is enclosed a pale luteous irregular macular space; clavus with two small ochraceous spots on each side; antennæ fuscous, base of first joint and sometimes the whole of second joint pale castaneous or ochraceous, apex of third joint pale luteous; membrane greyish brown with the veins darker: body beneath black, legs dark castaneous; lateral margins of sternum, anterior margin of mesosternum, tibiæ, tarsi and rostrum ochraceous; apex of rostrum piceous.

Length 9 millim.

Hab. Nága Hills (*Doherty*). Ceylon; Kandy, Yatiyantota (*Green*). Tenasserim; Myitta (*Doherty*).—North Borneo (*Brit. Mus.*).

A somewhat variable species in the ochraceous markings.

Genus GONATAS.

Gonatas, *Dist. Biol. Centr.-Amer., Rhynch.* i, p. 219 (1882).

Type, *G. typicus*, Dist., from Central America.

Distribution. Neotropical and Oriental Regions.

Head rather longer than broad and, including outer margins of eyes, a little narrower than anterior margin of pronotum; antennæ with the three basal joints more or less hirsute, first joint passing apex of head, second longest; pronotum broader than long, anterior margin narrower than basal, the lateral margins moderately ampliated, anterior angles rounded and with an obscure central transverse impression, posterior margin more or less concave at base of scutellum; scutellum triangular, a little longer than broad; anterior femora moderately thickened, with a few small spines beneath near apex; intermediate and posterior tibiæ setose; rostrum reaching intermediate coxæ, first joint reaching base of head.

826. **Gonatas clypeatus**, sp. n.

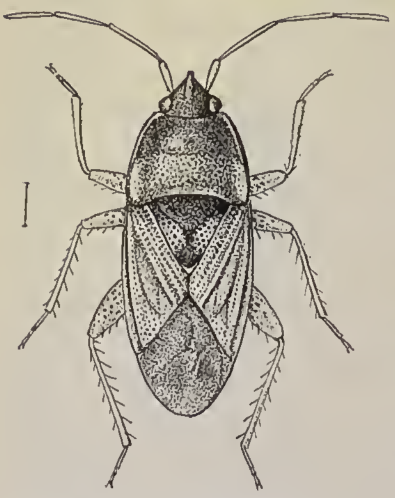

Fig. 68.—*Gonatas clypeatus.*

Head, pronotum and scutellum piceous or dark castaneous; posterior area of pronotum much paler in hue; an elongate marginal spot at lateral pronotal angles, two spots a little beyond middle of scutellum and its apex ochraceous; corium luteous, membrane subhyaline: body beneath piceous; legs and rostrum ochraceous; antennæ brownish - ochraceous, the basal joint palest; scutellum with a very distinct carination on posterior half, which is bifurcate on disk; posterior lobe of pronotum and the scutellum thickly and coarsely punctate, corium more sparingly punctate.

Length 4 to 5 millim.

Hab. Burma; Karennee, Schwego Myo (*Fea*).

827. **Gonatas majusculus**, sp. n.

Head, anterior area of pronotum, scutellum, body beneath, and legs black; nearly posterior two-thirds of pronotum, tarsi, and apex of scutellum ochraceous; corium, antennæ and tibiæ castaneous; antennæ with the first and second joints black, the third and fourth castaneous, the three basal joints hirsute, fourth joint pilose; the ochraceous area of pronotum and corium coarsely punctate, scutellum more finely punctate; membrane pale fuliginous, not reaching the apex of abdomen; corium with the apical margin broadly piceous; scutellum with the lateral margins somewhat distinctly prominent; tibiæ setose.

Length $6\frac{1}{2}$ millim.

Hab. Tenasserim (*Coll. Dist.*).

In spite of the character of all the tibiæ being setose, I have placed this large species in the genus *Gonatas*, with which it agrees in most of the other structural details.

Genus **ABDOLOMINUS**, nov.

Type, *A. picinus*, Dist.

Distribution. Oriental Region.

Allied to *Gonatas*, but with the second joint of antennæ almost subequal in length to third; base of pronotum straight, not concavely sinuate; scutellum not longer than broad.

828. **Abdolominus picinus**, sp. n.

Head, rostrum, pronotum, scutellum and body beneath piceous, shining; corium and legs castaneous; antennæ ochraceous, the apical joint a little infuscated; membrane pale subhyaline, with a piceous spot on each side near base; antennæ with the second, third, and fourth joints almost subequal in length; pronotum

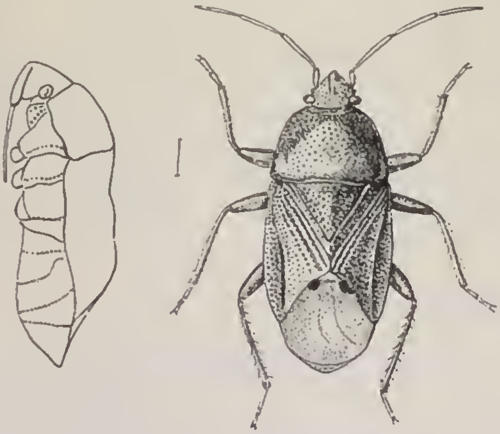

Fig. 69.—*Abdolominus picinus.*

punctate, more distinctly so on basal area; scutellum punctate, with an obscure central carination; corium thickly and distinctly punctate; intermediate and posterior tibiæ longly setose.

Length 4 millim.

Hab. Burma; Karennee (*Fea*).

829. **Abdolominus intaminatus**, sp. n.

Head, pronotum, scutellum and body beneath black, shining; antennæ, margins of posterior angles of pronotum, corium and legs ochraceous; membrane subhyaline, unspotted; femora (excluding apices) pale castaneous; clavus with a small linear impunctate line near apex; membrane passing abdominal apex; corium punctate, with a castaneous patch at the inner area; other characters as in *A. picinus.*

Length 3½ millim.

Hab. Burma; Karen Hills.

Genus DRYMUS.

Drymus, *Fieber, Eur. Hem.* pp. 46 & 178 (1861); *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 60; *Saund. Hem. Het. Brit. Islds.* p. 114 (1892).
Lampronotus, *Dougl. & Scott, Ent. Month. Mag.* iv, p. 243 (1868).
Lamproplax (part.), *Dougl. & Scott, tom. cit.* p. 265.
Drymocoris, *Jakowl. Troudy Ent. Ross.* ix, p. 225 (1878).

Type, *D. pilipes*, Fieb., a Palæarctic species.
Distribution. Palæarctic and Oriental Regions.

Body broad, oval, or oblong; head with the eyes touching or not quite touching the pronotum; rostrum reaching the intermediate coxæ; antennæ with the apical joint shorter than second; pronotum with the lateral margins slightly sinuate, narrowly reflexed, basal margin moderately sinuate; scutellum foveately impressed; membrane usually fully developed; anterior femora finely spined beneath.

830. **Drymus bicolor**, *Dist. A. M. N. H.* (7) viii, p. 508 (1901).

Black; corium ochraceous, thickly brownly punctate, membrane pale hyaline: head, pronotum and scutellum coarsely punctate; pronotum strongly sinuate at the apices of the transverse impression, lateral margins of the anterior lobe convex, posterior lateral angles slightly nodulose and a little paler in hue; corium coarsely punctate, the lateral margins levigate, the apical angles and a suffusion near inner angle fuscous.

Fig. 70.—*Drymus bicolor.*

Length $3\frac{1}{2}$ millim.

Hab. Sikhim; Mungphu (*Atkinson Coll., Brit. Mus.*).

Genus SCOLOPOSTETHUS.

Scolopostethus, *Fieber* (part.), *Eur. Hem.* pp. 49 & 188 (1861); *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 7, p. 60; *Saund. Hem. Het. Brit. Islds.* p. 108 (1892); *Horv. Rev. d'Ent.* xi, p. 253 (1892).
? Tritomacera, *Costa, Ann. Soc. Ent. Fr.* 1841, p. 296.

Type, *S. cognatus*, Fieb., a Palæarctic species.
Distribution. Palæarctic, Oriental, Australasian, and Nearctic Regions.

Head with eyes not quite touching the pronotum, triangular, anteriorly acuminate, first joint of antennæ considerably passing apex of head; rostrum reaching the intermediate coxæ; pronotum usually trapezoidal, but according to Saunders sometimes nearly square, "this character varying with the development of the wings," lateral margins sinuate, laminate; anterior femora incrassate, with a single long spine and a series of smaller ones between it and the apex.

831. **Scolopostethus ornandus**, sp. n.

Head, anterior lobe of pronotum, and scutellum black; posterior pronotal lobe castaneous punctured with black, enclosing a central and two oblique lateral paler spots, a spot on lateral margin near transverse impression luteous; corium luteous; apex of clavus and an adjoining subclaval fascia piceous, a narrow transverse central fascia and the apical area broadly black; membrane greyish much suffused with piceous: body beneath black; antennæ and legs castaneous; second, third and fourth joints of antennæ subequal in length. Anterior lobe of pronotum a little longer than posterior lobe, transverse impression very distinct; scutellum tumid, foveate at base.

Fig. 71.—*Scolopostethus ornandus.*

Length 4 millim.

Hab. Burma; Karennee (*Fea*).

Genus **GONSALVUS**, nov.

Type, *G. typus*, Dist.

Distribution. Burma.

Body elongate, gradually narrowing from base of pronotum to apex of head; head acuminate, about half the length of pronotum, moderately tumid; first joint of antennæ about reaching apex of head, second, third, and fourth joints subequal in length; rostrum long, reaching the posterior coxæ, first joint extending to base of head; pronotum obscurely transversely constricted, the anterior lobe much longer than the posterior, anterior lobe somewhat tumid, glabrous, posterior lobe punctate, lateral margins oblique, slightly sinuate near base, posterior margin concave; scutellum large, triangular, apex acute; corium a little longer than membrane, which has the veins longitudinal, not reticulate; anterior femora incrassate, the anterior tibiæ ampliated at apices and distinctly notched; membrane slightly passing abdominal apex.

832. **Gonsalvus typus**, sp. n.

Head, antennæ, pronotum, and scutellum piceous; rostrum, apex of head, first joint and base of second joint of antennæ, and corium ochraceous, the last somewhat thickly punctured with brown; membrane brownish, the veins much paler: body beneath dark castaneous, lateral margins of sternum, posterior angles of pro- and metasterna, and legs ochraceous; punctures of corium arranged in longitudinal series; basal area of pronotum sparingly punctate.

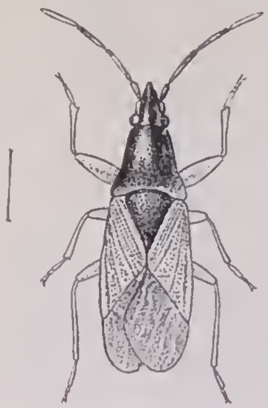

Fig. 72.—*Gonsalvus typus.*

Length 7 millim.

Hab. Burma; Mandalay (*Fea*).

Family PYRRHOCORIDÆ.

The Pyrrhocoridæ, by some writers included in the Lygæidæ, can be at once distinguished from that family by the absence of ocelli. They are also, as a rule, much larger and more robust insects, while the structure of the head renders them easy to identify. They are generally of bright colours, red and black being the predominant tints.

The Pyrrhocoridæ are a much smaller family than the Lygæidæ, and from their larger size and conspicuous appearance are much better known to entomologists, consequently we may presume that our knowledge of them is already of a very representative character.

Stål (Hem. Afr. iii, p. 1, 1865) has divided the Pyrrhocoridæ into two subfamilies.

Synopsis of Subfamilies.

A. Sixth ventral segment in the female always cleft at base .... *Larginæ.*
B. Sixth ventral segment in both sexes entire . *Pyrrhocorinæ.*

Subfamily I. LARGINÆ.

A small subfamily which finds its headquarters in the Neotropical Region; the genera found in the Old World are not numerous, and they are best represented in the Oriental Region; the Ethiopian representatives are very few.

Synopsis of Genera.

A. Antennæ very long in male, first joint about twice as long as head and pronotum together .... LOHITA, p. 94.
B. Antennæ normal in both sexes, first joint longer than head, but shorter than head and pronotum together.
  a. Pronotum with anterior disk convex, the convexity not reaching anterior margin; lateral margins strongly reflexed ...... IPHITA, p. 96.
  b. Pronotum with anterior convex area reaching anterior margin; lateral margins not strongly reflexed .... PHYSOPELTA, p. 97.

Genus **LOHITA**.

Lohita, *Amy. & Serv. Hem.* p. 266 (1843); *Stål, En. Hem.* i, p. 91 (1870).

Macrocerœa, *Spin. Es. Hem.* p. 177 (1840); *Kirk. & Edw. Wien. ent. Zeit.* xxi, p. 165 (1902).

Type, *L. grandis*, Gray.

Distribution. Oriental Region.

Body elongate, in the male with the abdomen abnormally prolonged to about twice its usual length, in the female normal; antennæ in the male exceedingly long, first joint about twice as long as head and pronotum together, in the female a little longer than head and pronotum together; corium broader than abdomen, its apical angle longly narrowly produced; legs long, anterior femora moderately thickened, very finely serrate beneath and distinctly spined towards apex.

833. **Lohita grandis,** *Gray* (Lygæus), *in Griff. An. King.* xv, *Ins.* ii, p. 242, pl. 92, f. 3 (1832): *Brullé* (Astemma), *Hist. des Ins.* ix, p. 383 (1836); *Guer.* (Macroceraia) *Ic. Règne Anim., Ins.* p. 346, pl. lvi, f. 3 (1838); *Amy. & Serv. Hém.* p. 266 (1843).
Macrocerœa longicornis. *Spin. Ess.* p. 177 (1840).
Var. longissima, *Stål, En. Hem.* i, p. 98 (1870).
Var. sumatrana, *Dist. Ent. Month. Mag.* xix, p. 158 (1882).

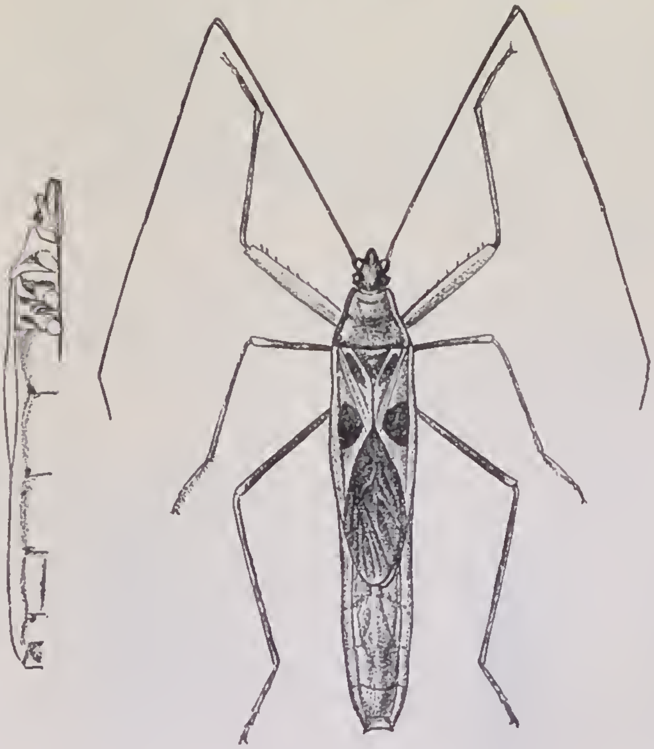

Fig. 73.—*Lohita grandis*, ♂.

Sanguineous; antennæ (excluding base of first joint), disk of posterior lobe of pronotum (sometimes obsolete), scutellum (excluding base and apex), a central elongate spot to clavus (sometimes obsolete), a large somewhat rounded spot, variable in size, near inner angle of corium, membrane, lateral sternal spots, rather obscure spots near lateral margins of abdominal incisures,

and the legs black; anterior femora, bases and apices of intermediate and posterior femora sanguineous.

Length, ♂ 40 to 54, ♀ 28 to 33 millim.

Hab. Assam; North Khási Hills (*Chennell*). Calcutta. Upper Tenasserim (*Limborg*).—Sumatra. Sumatran specimens almost constitute a distinct local race. I have not yet received a specimen from Ceylon.

Said to attack cotton-plants (*Gossypium herbaceum*) (*cf.* Atkinson, Ind. Mus. Notes, i, p. 125, & ii, p. 166).

Genus IPHITA.

Iphita, *Stål, En. Hem.* i, pp. 91 & 99 (1870).

Type, *I. limbata*, Stål.

Distribution. Oriental Region.

First joint of antennæ in both sexes longer than head, but shorter than head and pronotum together; pronotum with the disk of the anterior area convex, the convexity, however, well separated from the anterior margin, anterior margin a little concavely sinuate, lateral margins reflexed; anterior femora strongly spined beneath towards apices. Body oblong; head somewhat large, equilateral, convex; rostrum reaching the posterior coxæ, first joint slightly shorter than head (not "articulo primo capite nonnihil longiore," as described by Stål), fourth joint shorter than third.

A. *Second joint of antennæ a little longer than the first.*

834. **Iphita limbata**, *Stål, En. Hem.* i, p. 99 (1870); *Bredd.* (Physopelta) *Stett. ent. Zeit.* 1901, p. 138.

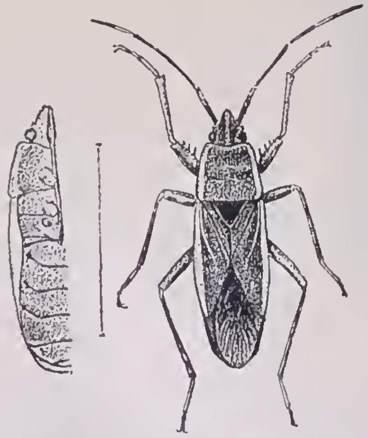

Fig. 74.—*Iphita limbata.*

Piceous or brownish-piceous; lateral margins of pronotum and corium and base of apical joint of antennæ pale luteous; apices of femora, bases of tibiæ, coxæ, and trochanters dull reddish; lateral margins of prosternum, posterior lateral margin of metasternum, and abdominal lateral margins luteous. Second joint of antennæ a little longer than the first.

Var. The luteous marginal markings replaced by brownish. Pronotum obscurely transversely impressed near centre.

Length 17 to 19 millim.

Hab. Assam; North Khási Hills (*Chennell*). Hardwár (*Wood-Mason*). Calcutta (*Ind. Mus.*). Tenasserim; Houngdarau Valley (*Fea*), Tavoy (*Ind. Mus.*).

B. *Second joint of antennæ a little shorter than the first.*

835. **Iphita grandis**, sp. n.

Black; lateral margins of pronotum and corium, apex of scutellum, lateral margins of sternum and abdomen, anterior margin of prosternum, posterior margin of metasternum, coxæ, trochanters, and bases of femora reddish-ochraceous; fourth joint of antennæ greyish brown, its apical area luteous: second joint of antennæ a little shorter than the first; pronotum transversely impressed a little before centre.

Length 25 millim.

Hab. Ceylon; Peradeniya (*Green*).

Genus PHYSOPELTA.

Physopelta, *Amy. & Serv. Hém.* p. 271 (1843); *Stål, Hem. Afr.* iii, p. 2 (1865); *id. En. Hem.* i, pp. 91 & 99 (1870).

Type, *P. albofasciata*, de Geer, a Javan species.

Distribution. Ethiopian, Oriental, and Australian Regions; also received from China.

Differing principally from the previous genus (*Iphita*) by the anterior convex area of the pronotum reaching the anterior margin, and the lateral pronotal margins being much less reflexed.

836. **Physopelta gutta**, *Burm.* (Pyrrhocoris) *Nov. Act. Acad. Leop.* xvi, *Suppl.* p. 300, pl. xli, f. 10 (1834); *id. Handb.* ii, 1, p. 285 (1835); *Stål, Berl. ent. Zeitschr.* vii, p. 391 (1863).

Physopelta bimaculata, *Stål, Öfv. Vet.-Ak. Förh.* 1855, p. 186.

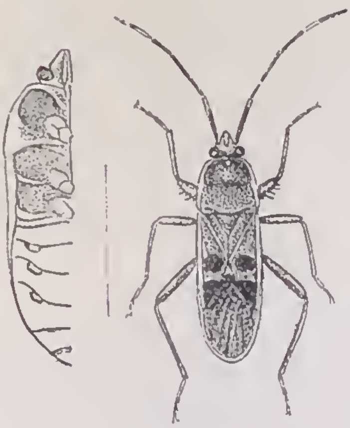

Fig. 75.—*Physopelta gutta.*

Dull reddish-ochraceous; antennæ, large basal spot to head, pronotum (excluding margins), scutellum, and basal area of corium fuscous; a discal rounded spot and apical angles of corium and the membrane black; rostrum, sternum, legs, abdominal incisures and three sublateral spots fuscous; lateral margins of the prosternum, base of first joint of antennæ, basal angle of membrane, coxæ, trochanters and femora beneath dull reddish-ochraceous: body pilose; base of apical joint of antennæ ochraceous.

Length 15 to 17 millim.

Hab. Assam; Margherita (*Doherty*), North Khási Hills (*Chennell*). Ceylon (*Green*). Burma; Bhamo (*Fea*). Tenasserim; Myitta (*Doherty*).—Also recorded from Japan (*Lewis*), W. Yunnan, and Sumatra.

837. **Physopelta quadriguttata**, *Bergr. Rev. d'Ent.* xiii, p. 160 (1894).
Physopelta indra, *Kirk. & Edw. Wien. ent. Zeit.* xxi, p. 165 (1902).

Oblong, ochraceous; anterior and lateral margins of pronotum, a median subelevated line to anterior lobe, shortly continued in posterior lobe, lateral margins of corium, prosternum, and abdomen, and apex of scutellum luteous; a rounded spot on disk of corium, and a smaller and more oblong spot near apical angle black; head, sternum, and membrane fuscous; abdomen on each side at bases of third, fourth, and fifth segments marked with a curved black spot; posterior lobe of pronotum, scutellum, and corium (excluding lateral margin) thickly and coarsely brownly punctate; antennæ black, first joint subequal in length to pronotum, fourth joint with a broad basal whitish annulation; membrane slightly passing the abdominal apex. The legs are variable in coloration, either ochraceous, or with the femoral apices and tibiæ and tarsi fuscous, or wholly fuscous.

Length 13 to 17 millim.

Hab. Sikhim (*fide Bergroth*). Nága Hills (*Doherty*). Malabar Mahé (*Duchaussoy*).

838. **Physopelta cincticollis**, *Stål, Berl. ent. Zeitschr.* vii, p. 392 (1863).

Oblong, fuscous-piceous; margins of pronotum, lateral margins of prosternum and abdomen, and corium ochraceous; the last with a spot near centre and the apical angle black; clavus and basal area of corium infuscated; basal half of last joint of antennæ stramineous; membrane fuscous, its base paler, apical margins whitish; head with eyes a little broader than long; antennæ with the first joint slightly shorter than the second; pronotum transverse, posteriorly half as broad again as anteriorly, behind middle distinctly punctate; corium distinctly punctate; anterior femora armed with two spines near apex.

Length, ♀, 12 millim.

Hab. "India orientalis" (*Stål*).

I have not seen this species.

839. **Physopelta apicalis**, *Walk. Cat. Het.* vi, p. 21 (1873).

Dull sanguineous; head, antennæ, pronotum (excluding lateral and posterior margins), scutellum, base of outer lateral margin of clavus, body beneath and legs piceous; antenniferous tubercles, base and apex of first joint of antennæ, head beneath, rostrum, coxæ, trochanters, bases and apices of femora, bases of tibiæ, anterior margin of prosternum, lateral margins of sternum and abdomen dull sanguineous; a transverse fascia to corium near inner angle and the membrane black; first joint of antennæ a little longer than second, third shorter than second but a little longer than fourth; lateral margins of pronotum somewhat

ampliately recurved, narrowly but distinctly transversely impressed near middle.

Length 19 to 20; breadth between pronot. angl. 6 millim.

Hab. "Hindostan" (*Brit. Mus.*). Bor Ghát (*Dixon*).

840. **Physopelta schlanbuschi,** *Fabr.* (Cimex) *Mant. Ins.* ii, p. 299 (1787); *id.* (Lygæus) *Ent. Syst.* iv, p. 155 (1794); *Stål, Hem. Fabr.* i, p. 80 (1868).

Pyrrhocoris schlangenbuschii, *Burm. Handb.* ii, 1, p. 286 (1835).

Stoll, Pun. f. 273.

Sanguineous; antennæ, two spots on anterior lobe of pronotum (sometimes obsolete), two large transverse spots near anterior margin of posterior lobe, scutellum, a rounded discal spot to corium, membrane, a lateral series of long transverse linear spots on sternal and abdominal incisures, apex of rostrum, tibiæ and tarsi black; base of first joint of antennæ and apex of scutellum sanguineous; antennæ pilose, apical joint greyish, first and second joints almost subequal in length, or second a little longer; posterior area of pronotum sparingly but very coarsely punctate; clavus somewhat coarsely, corium much more finely punctate.

Length 13 to 16 millim.

Hab. Assam; Noa-Dehing Valley (*Chennell*). Burma; Bhamo, Karennee (*Fea*). Tenasserim; Meetan (*Fea*).—China.

This species is said to affect the rice crop (*cf.* Atkinson, Ind. Mus. Notes, i, pp. 125–6, and ii, p. 166).

Subfamily II. PYRRHOCORINÆ.

The Pyrrhocorinæ, as already pointed out, are distinguished from the Larginæ by having the sixth ventral segment entire and not cleft in both sexes, and contain a large majority of the genera of the whole family. The distribution of this subfamily is almost universal, but whereas the Larginæ are principally found in the Neotropical Region, the Pyrrochorinæ are very largely Oriental and Ethiopian in distribution.

Synopsis of Genera.

A. Hemelytra complete, membrane fully developed.
- a. Apical angle of corium more or less rounded, not elongately acute.
  - *a.* Head transversely constricted or impressed beneath near base .... ANTILOCHUS, p. 100.
  - *b.* Head not transversely constricted or impressed beneath.
    - *a'.* Anterior area of pronotum completely circumscribed by continuous impression or punctures.

a^2. Head with eyes broader than anterior margin of pronotum; eyes pedunculate .... ECTATOPS, p. 102.
b^2. Head with eyes not broader than anterior margin of pronotum; eyes not pedunculate .... EUSCOPUS, p. 105.
b'. Anterior area of pronotum not or incompletely circumscribed by continuous impression or punctures.
a^2. Incisures of third and fourth ventral segments moderately laterally curved.
a^3. Lateral margins of pronotum acute, seldom reflexed.
a^4. Eyes not touching anterior margin of pronotum .... MELAMPHAUS, [p. 107.
b^4. Head immersed to eyes ...... ODONTOPUS, p. 108.
b^3. Lateral margins of pronotum strongly reflexed............. DINDYMUS, p. 110.
b^2. Incisures of ventral segments straight, not distinctly curved .... PYRRHOPEPLUS, [p. 115.
b. Apical angle of corium elongately acute.... DYSDERCUS, p. 118.
B. Hemelytra incomplete, membrane absent or seldom fully developed.
a. Head with eyes wider than anterior margin of pronotum .... COURTESIUS, p. 114.
b. Head with eyes not wider than anterior margin of pronotum.
a. Apical margin of corium truncate.
a'. First joint of rostrum as long as head.. DERMATINUS, p. 115.
b'. First joint of rostrum much shorter than head....................... SCANTIUS, p. 117.
b. Apical margin of corium rounded ...... PYRRHOCORIS, [p. 116.

Genus ANTILOCHUS.

Antilochus, *Stål, Berl. ent. Zeitschr.* vii, p. 393 (1863); *id. Hem. Afr.* iii, p. 4 (1865); *id. En. Hem.* i, p. 103 (1870).
Neœretus, *Reut. Ent. Tidskr.* viii, p. 92 (1887).

Type, *A. coqueberti*, Fabr.

Distribution. Ethiopian (including Madagascar) and Oriental Regions, and extending throughout the Malay Archipelago to New Guinea.

Head longer than broad between eyes, transversely constricted or impressed beneath near base, somewhat deflected, and immersed to eyes, which are prominent and sessile; antennæ of moderate length; rostrum short, the two apical joints almost equal to, or a little shorter than, the first joint; lateral margins of the pronotum moderately laminate, but rarely distinctly reflexed; anal segment in the female large and posteriorly rounded; legs normal, femora moderately thickened, posterior tarsi with the basal joint much longer than the two apical joints together.

A. *Lateral margins of the pronotum not distinctly reflexed.*

841. **Antilochus russus**, *Stål, Berl. ent. Zeitschr.* vii, p. 394 (1863).

Sanguineous; membrane pale brownish-ochraceous; antennæ, eyes, two transverse series of punctures to pronotum, the first strongly angulated, a transverse series of punctures near base of scutellum, sternal and ventral incisures, and a rounded spot near base of membrane black; apices of tibiæ and the tarsi fuscous; pronotum twice as broad at base as at apex, obscurely punctate, excepting the discal area between the black punctures; corium thickly punctate; anterior femora spined beneath near apices.

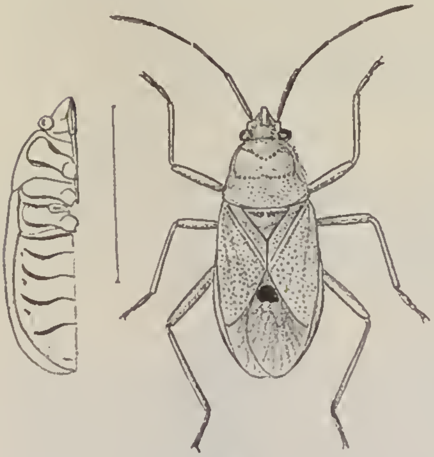

Fig. 76.—*Antilochus russus.*

Length 17 to 19 millim.

Hab. Sikhim. Bhutan. Assam; Margherita (*Doherty*), North Khási Hills (*Chennell*). Tavoy.

842. **Antilochus coqueberti**, *Fabr.* (Lygæus) *Syst. Rhyng.* p. 222 (1803); *Burm.* (Pyrrhocoris) *Handb.* ii, 1, p. 284 (1835); *Blanch.* (Astemma) *Hist. des Ins.* p. 128 (1840); *Stål* (Odontopus), *Öfv. Vet.-Ak. Förh.* 1855, p. 390; *id. Hem. Fabr.* i, p. 81 (1868).

Cimex augur, var. *a*, *Thunb. Nov. Ins. Sp.* iii, p. 58 (1784), excl. syn.

Sanguineous; antennæ, eyes, membrane, and sternal and ventral incisures black; base of first joint of antennæ sanguineous; interior angle and apical margin of membrane pale brownish-ochraceous; apices of tibiæ and the tarsi fuscous; pronotum with the posterior margin twice as broad as anterior margin, sparingly obscurely punctate, excepting anterior discal area which is margined with black punctures; corium thickly punctate; anterior femora shortly spined beneath near apex.

Length 14 to 16 millim.

Hab. Kashmir (*Hügel*). Assam; North Khási Hills (*Chennell*), Nága Hills (*Doherty*). Calcutta. Secunderabad. Ceylon; Colombo (*Green*). Andaman Islands; Port Blair (*Meldola*). Burma; Minhla (*Comotto*), Bhamo (*Fea*). Tenasserim; Meetan, Mt. Mooleyit (*Fea*).

B. *Lateral margins of the pronotum distinctly reflexed.*

843. **Antilochus nigripes,** *Burm.* (Pyrrhocoris) *Handb.* ii, 1, p. 284 (1835); *Stål, Berl. ent. Zeitschr.* vii, p. 394 (1863).
Physopelta rubricosus, *Stål, Öfv. Vet.-Ak. Förh.* 1854, p. 236.

Sanguineous; antennæ, membrane, rostrum and legs black; base of fourth joint of antennæ, internal angle and apical margin of membrane pale ochraceous; pronotum punctate, excluding discal anterior area, the punctures surrounding which are concolorous; corium somewhat thickly punctate; lateral margins of pronotum distinctly reflexed.

Length 15 to 16 millim.

Hab. Assam; Khási Hills (*Chennell*). Ceylon; Peradeniya (*Green*). Tenasserim; Thagata, Mt. Mooleyit (*Fea*).—Found in several islands of the Malay Archipelago; Sumatra (*Forbes*). Philippines (*vide Stål*). Also recorded from China.

844. **Antilochus pygmæus,** sp. n.

Sanguineous; antennæ, eyes, basal margin of scutellum, and membrane black; legs and rostrum fuscous, bases of femora and base of first joint of antennæ, inner angle and apical margin of membrane ochraceous; abdomen beneath somewhat suffused with piceous on apical area; head very acuminate anteriorly; pronotum with the lateral margins distinctly reflexed; pronotum and corium punctured as in preceding species (*A. nigripes*).

Length 10 millim.

Hab. Ceylon; Kandy (*Green*).

845. **Antilochus lineatipes,** *Stål* (Odontopus), *Öfv. Vet.-Ak. Förh.* 1858, p. 441; *Dohrn* (Dysdercus), *Stett. ent. Zeit.* xxi, p. 405 (1860).

Black; lateral margins of pronotum (widest posteriorly), corium, lateral margins of prosternum, posterior margin of metasternum, and abdomen beneath sanguineous; corium with the clavus and a large transverse spot near inner angle black; abdomen beneath with a large transverse elongate black spot on each lateral area of the incisures; fourth joint of antennæ obscurely ochraceous at base; pronotum with the lateral margins distinctly reflexed, posterior area only sparsely punctate.

Var. The sanguineous coloration replaced by ochraceous.

Length 21 to 23 millim.

Hab. Trivandrum. Ceylon; Kandy (*Green*).

Genus **ECTATOPS**.

Ectatops, *Amy. et Serv Hém.* p. 273 (1843); *Stål, En. Hem.* i, p. 102 (1870).

Type, *E. limbata*, Amy. & Serv.

Distribution. Oriental Region; extending throughout the Malay Archipelago to New Guinea.

Head with eyes broader than the anterior margin of the pronotum, eyes pedunculate; pronotum trapezoidal, the transverse impression nearest to the anterior margin, lateral margins distinctly reflexed; rostrum of variable length, basal joint about reaching apex of head; femora moderately thickened, anterior femora with some small spines beneath near apex; third and fourth abdominal incisures curved and not reaching lateral margins.

A. *Rostrum just passing intermediate coxæ.*

846. **Ectatops gelanor**, *Kirk. & Edw. Wien. ent. Zeit.* xxi, p. 167 (1902).

Piceous; apical half of fourth joint of antennæ, apex of scutellum, a discal spot and apical angle to corium, rostrum, and a small spot near intermediate acetabula ochraceous; corium with a small black spot attached to the discal ochraceous spot, and a rounded black spot in the apical angular ochraceous area; a sublateral black spot on each of the last four abdominal segments; rostrum just passing the intermediate coxæ; pronotum with the posterior area very coarsely punctate, the discal anterior area defined by a marginal series of very profound punctures; scutellum (excluding basal area) and the corium thickly punctate.

Fig. 77.—*Ectatops gelanor.*

Length $9\frac{1}{2}$ to 10 millim.

Hab. Burma; Karennee (*Fea*).

B. *Rostrum reaching apex of second abdominal segment.*

847. **Ectatops indigna**, *Walk.* (Dindymus) *Cat. Het.* vi, p. 10 (1873); *Dist. A. M. N. H.* (7) ix, p. 36 (1902).
Ectatops largoides, *Walk. tom. cit.* p. 24 (1873).

Piceous; head, base of first joint of antennæ, margins of pronotum, extreme apex of scutellum, basal lateral margins of corium, lateral margins of head beneath, and lateral margins of prosternum sanguineous; abdomen luteous, segmental incisures piceous on lateral areas; connexivum reddish-ochraceous; internal area of membrane usually fuliginous; anterior discal area of pronotum marginally defined by black punctures, the anterior series angulate, posterior disk sparingly punctured, the punctures not reaching margins; corium thickly punctate; rostrum about reaching apex of second abdominal segment; anterior femora with two short prominent spines near apex.

Var. Corium almost entirely red; basal angle and apical margin of the membrane ochraceous.

Length 11 to 14 millim.

Hab. Assam; Noa-Dehing Valley (*Chennell*). Burma: Karennee, Palon (*Fea*). Arakan (*Brit. Mus.*). Tenasserim; Mt. Mooleyit (*Fea*). Tavoy.—Siam.

848. **Ectatops ophthalmica**, *Burm.* (Pyrrhocoris) *Handb.* ii, 1, p. 284 (1835); *Stål, Berl. ent. Zeitschr.* vii, p. 397 (1863).

Sanguineous; pronotum, basal margin of scutellum, membrane, antennæ, rostrum, sternum, basal abdominal segment and legs black; apical joint of antennæ ochraceous, its apex fuscous; basal angle and apical margin (both varying in width of membrane) dull obscure ochraceous; head beneath black, its margins sanguineous; anterior area of pronotum defined by a transverse series of coarse punctures; corium somewhat thickly and coarsely punctate; rostrum reaching apex of second abdominal segment.

Variable in colour of membrane; either black with basal angle and apical margin ochraceous, or ochraceous with black discal spot.

Length 11 to 14 millim.

Hab. Sylhet (*Vienna Mus.*).—Found in the Malay Peninsula and western islands of the Malayan Archipelago.

849. **Ectatops rubiacea**, *Amy. & Serv. Hém.* p. 273 (1843): *Stål, Berl. ent. Zeitschr.* vii, p. 396 (1863); *Dist. A. M. N. H.* (7) ix, p. 37 (1902).

Dindymus imitator, *Walk. Cat. Het.* vi, p. 7 (1873).

Sanguineous; membrane ochraceous; abdomen beneath and connexivum luteous; antennæ (excluding base of first joint), punctures defining the anterior discal area of pronotum, basal margin of scutellum, a large apical or sometimes subapical spot to membrane, head beneath (excluding lateral margins), rostrum, sternum, and legs black; lateral margins of prosternum sanguineous; segmental incisures on lateral areas piceous; posterior area of pronotum somewhat sparingly punctate; corium thickly punctate; rostrum reaching the apex of the second abdominal segment.

Length 12 to 15 millim.

Hab. Shillong. Sibságar (*Ind. Mus.*). Burma; Karennee (*Fea*). Tenasserim; Mt. Mooleyit (*Fea*); Tavoy.—Siam (*Brit. Mus.*).—Common in the Malay Peninsula, and found in several islands of the Malayan Archipelago.

850. **Ectatops limbata**, *Amy. et Serv. Hém.* p. 273 (1843); *Stål, Berl. ent. Zeitschr.* vii, p. 396 (1863); *id. En. Hem.* i, p. 105 (1870)

Black; head above and lateral margins of head beneath, anterior disk and lateral margins of pronotum, lateral and apical margins (the last very narrowly) of corium, lateral margins of prosternum, and abdomen dull sanguineous; posterior area of pronotum and

the corium thickly punctate; rostrum reaching the apex of the second abdominal segment.

Var. According to Stål, this species varies by sometimes having the posterior lobe of the pronotum and the hemelytra more or less broadly margined with, or nearly totally, reddish.

Length 13 millim.

Hab. India (*fide Stål*).—Java.

Species unknown to the writer.

851. **Ectatops distincta,** *de Vuillefr. Ann. Soc. Ent. Fr.* 1864, p. 144.

"Pronotum entirely red; head red above; scutellum black with the extreme apex red; membrane black, yellowish at internal basal area; body black beneath, laterally margined with red; abdomen exhibiting a reddish tint at about the middle of its disk." (*de Vuillefroy.*)

Length 13 millim.

Hab. Sylhet.

I have seen a specimen from Sylhet, belonging to the Vienna Museum, which is apparently a variety of this species, having a piceous transverse fascia behind the anterior pronotal callosity.

852. **Ectatops lateralis,** *de Vuillefr. Ann. Soc. Ent. Fr.* 1864, p. 144.

"Lateral margins of the pronotum straight, its discal impression slightly approaching the anterior margin; head produced in triangular form. Entirely red above, corium margined with black on its posterior half; membrane black; antennæ and legs red; all the under surface of the body very pale, excepting the head beneath which is red; abdomen exhibiting on its disk a large triangular black spot which does not reach the base and of which the margins are irregular." (*de Vuillefroy.*)

Length 11 to 13 millim.

Hab. Sylhet.

Genus **EUSCOPUS.**

Euscopus, *Stål, En. Hem.* i, pp. 102 & 106 (1870).

Type, *E. rufipes*, Stål.

Distribution. Oriental Region.

Body oblong, beneath sericeous; head as long as broad, deflected from above, moderately convex, equal in width to the anterior margin of the pronotum; rostrum reaching or passing the intermediate coxæ, first joint not longer than the head; antennæ short, first joint longest, second and fourth equal in length; pronotum transverse, lateral margins reflexed, transverse impression distinct and continuous; corium with the apical margin nearly straight; legs normal, anterior femora moderately incrassated, armed beneath near apices with two small spines; incisures to third and fourth ventral segments with their apices anteriorly curved.

853. **Euscopus rufipes**, *Stål, En. Hem.* i, p. 106 (1870).
Pyrrhocoris vittiventris, *Walk. Cat. Het.* v, p. 171 (1872).
Æschines pyrrhocoroides, *Kirk. & Edw. Wien. ent. Zeit.* xxi, p. 167, t. iii, ff. 7, 7 *a* (1902).

Fig. 78.—*Euscopus rufipes.*

Black; margins of pronotum, broadest posteriorly, apex of scutellum, corium, connexivum (above and beneath), lateral margins of prosternum and legs sanguineous; clavus (excluding sutural margins), a large rounded discal spot, and sometimes apical angle to corium black; inner angle and apical margins of membrane pale fuliginous; fourth joint of antennæ stramineous, its apex fuscous: body beneath greyishly sericeous, a rounded black spot near basal lateral margins of third, fourth, and fifth segments; disk of pronotum, scutellum, and corium thickly finely punctate, posterior marginal area of pronotum sparingly and more coarsely punctate.

Var. In some specimens the ground-colour of the corium is ochraceous, and in others the abdominal disk is sanguineous.

Length 10 millim.

Hab. Sylhet (*Vienna Mus.*). North Khási Hills (*Chennell*); Nága Hills (*Doherty*). Burma; Karennee (*Fea*).—Originally described from Java.

854. **Euscopus indecorus**, *Walk.* (Pyrrhocoris) *Cat. Het.* v, p. 172 (1872); *Dist. A. M. N. H.* (7) ix, p. 37 (1902).

Piceous; lateral and posterior margins of pronotum, lateral margin and a small spot near apical margin of corium, lateral margins of prosternum, posterior margins of pro- and metasterna, lateral margins of abdomen, coxæ, trochanters and rostrum ochraceous or brownish-ochraceous; membrane dark fuliginous, its apical margin a little paler; fourth joint of antennæ fuscous, its base stramineous; last four segments of abdomen marked with a round black spot near lateral margins; transverse incisure to pronotum defined by a series of very coarse punctures; anterior femora with two distinct spines beneath near apex.

Length 7 to 10 millim.

Hab. Assam; North Khási and Nága Hills (*Chennell*). Ceylon (*Lewis*). Burma; Teinzo, Bhamo (*Fea*).—Originally described from Siam.

855. **Euscopus gestroi**, sp. n.

Piceous; basal joint of antennæ, lateral margins of pronotum and corium, connexivum, lateral margins of sternum and abdomen,

coxæ, trochanters, and legs sanguineous; apical joint of antennæ (excluding base) greyish; basal area of head finely and obscurely granulate; posterior area of pronotum coarsely punctate and somewhat rugulose: second joint of antennæ slightly longer than first, third and fourth subequal in length.

Length 7 millim.

Hab. Burma; Palon (*Fea*).

Genus **MELAMPHAUS.**

Melamphaus, *Stål, Hem. Fabr.* i, p. 83 (1868); *id. En. Hem.* i, p. 102 (1870).

Type, *M. faber*, Fabr.

Distribution. Oriental Region.

Body very oblong; head with eyes about equal in width to anterior margin of pronotum, eyes not touching anterior pronotal margin; rostrum long, first joint extending beyond anterior margin of prosternum; antennæ long, first and second joints equal in length; eyes sessile; pronotum long, narrowed anteriorly, lateral margins acute, sometimes reflexed, transverse impression curved, not continuous; hemelytra passing the apex of the abdomen; incisures of the third and fourth ventral segments moderately laterally curved; legs long, anterior femora spined beneath near apices; first joint of the posterior tarsi much longer than the two apical joints together.

A. *Lateral margins of pronotum acute, not reflexed.*

856. **Melamphaus faber**, *Fabr.* (Cimex) *Mant. Ins.* ii, p. 297 (1787); *id.* (Lygæus) *Ent. Syst.* iv, p. 146 (1794); *Stål, Hem. Fabr.* i, p. 83 (1868).

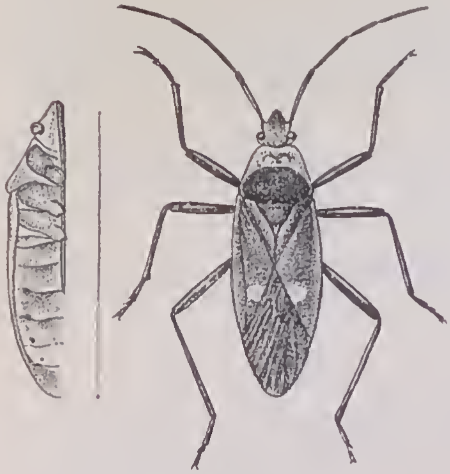

Fig. 79.—*Melamphaus faber.*

Sanguineous; antennæ, posterior area of pronotum, scutellum, corium, membrane, sternal sutures, two small basal medial spots to second and third abdominal segments, four lateral segmental abdominal spots, rostrum and legs black; corium with an ochraceous spot near centre of apical margin; rostrum extending to near middle of abdomen.

Var. *a*. Head sanguineous.

Var. *b*. Spot to corium very large and sanguineous.

Var. *c*. Body above uniformly black; disk of abdomen beneath piceous.

Length 25 to 28 millim.

Hab. Assam; North Khási Hills (*Chennell*); Nága Hills (*Doherty*); Sibságar (*Peal*). Darjeeling (*Coll. Dist.*). Burma; Rangoon (*Fea*).—Also found in the Malay Peninsula and several islands of the Malayan Archipelago; common in the Philippines.

857. **Melamphaus fulvomarginatus**, *Dohrn* (Dysdercus), *Stett. ent. Zeit.* xxi, p. 405 (1860); *Dist. A. M. N. H.* (7) ix, p. 37 (1902).
Melamphaus lateralis, *Walk. Cat. Het.* vi, p. 13 (1873).
Melamphaus marginalis, *Walk. loc. cit.* p. 14.

Piceous; lateral margins of pronotum, lateral margins of corium (sometimes not extending beyond middle), lateral margins of prosternum, sternal incisures, odoriferous apertures, and body beneath dull sanguineous; abdominal incisures piceous; fourth joint of antennæ fuscous, its basal half luteous; rostrum about reaching the middle of abdomen.

Var. *a*. Lateral and posterior margins of pronotum and lateral margins of corium luteous.

Length 20 to 24 millim.

Hab. Trivandrum. Ceylon; Peradeniya, Kandy (*Green*).

B. *Lateral margins of pronotum reflexed.*

858. **Melamphaus rubrocinctus**, *Stål* (Dysdercus), *Berl. ent. Zeitschr.* vii, p. 403 (1863); *Dist. A. M. N. H.* (7) ix, p. 37 (1902).
Melamphaus femoratus, *Walk. Cat. Het.* vi, p. 15 (1873).

Reddish-ochraceous, faintly sericeous; a small medial spot at base of head (frequently obsolete), antennæ, rostrum, pronotum, scutellum, corium, membrane, segmental incisures, tibiæ and tarsi black or piceous; lateral and posterior margins of pronotum, lateral margins of corium (excluding apex), and two oblique fasciæ differing in direction, one before middle and the other near apex, reddish-ochraceous; sternum fuscous, its segmental margins, spots near coxæ, and anterior margin of pronotum dull ochraceous; lateral margins of prosternum reddish-ochraceous; apical margin of membrane pale fuliginous.

Length 19 to 25 millim.

Hab. Assam; Margherita and Nága Hills (*Doherty*), Khási Hills (*Chennell*). Burma; Karennee (*Fea*).

Genus **ODONTOPUS**.

Odontopus, *Laporte, Ess. Hém.* p. 37 (1832); *Stål, En. Hem.* i, p. 102 (1870).

Type, *O. sexpunctatus*, Laporte, an Ethiopian species.

Distribution. Ethiopian and Oriental Regions.

Elongately subovate; lateral margins of the pronotum not or slightly reflexed, pronotal transverse impressions not nearly continued to lateral margins; rostrum not or scarcely reaching posterior coxæ; odoriferous apertures somewhat obsolete, their margins not or little callous; antennæ robust.

A. *First and second joints of antennæ subequal in length.*

859. **Odontopus nigricornis,** *Stål, Stett. ent. Zeit.* xxii, p. 146 (1861); *id. Berl. ent. Zeitschr.* vii, p. 393 (1863); *Dist. A. M. N. H.* (7) ix, p. 38 (1902).
Physopelta plana, *Walk. Cat. Het.* vi, p. 21 (1873).
Physopelta bimaculata, *Walk. loc. cit.* p. 22.

Ochraceous, reddish-ochraceous, or sanguineous; antennæ, transverse impressions to pronotum, basal margin of scutellum, a round spot near apical angle of corium, and sternal and abdominal incisures black; first and second joints of antennæ subequal in length, third shortest, transverse impressions to pronotum not laterally united by punctures; anterior femora finely serrate beneath, and armed with one or two prominent spines.

Fig. 80.
Odontopus nigricornis.

Length 16 to 22 millim.

Hab. Bombay (*Leith*); Bor Ghát (*Dixon*). Burma; Mandalay, Teinzo (*Fea*). Tenasserim; Houngdarau valley (*Fea*).

Found on the flowers of *Wedelia urticæfolia*, DC., at Khandála in September (*R. M. Dixon*).

860. **Odontopus scutellaris,** *Walk. Cat. Het.* v, p. 178 (1872).

Sanguineous; second joint of antennæ (excluding base), third and fourth joints, eyes, constrictions to pronotum, scutellum (excluding lateral margins and apex), two rounded spots to corium (one near inner angle, the other near apex), apical angle of corium, membrane, and the abdominal marginal incisures black; rostrum reaching the posterior coxæ; first joint of antennæ sparingly but longly pilose; first, second, and fourth joints subequal in length, third shortest; membrane not quite reaching apex of abdomen; tibiæ and tarsi clothed with fine bristles.

Length 15; breadth between pronotal angles $4\frac{1}{2}$ millim.

Hab. North Bengal (*Lieut. Campbell*).

B. *First joint of antennæ a little longer than second.*

861. **Odontopus varicornis,** *Fabr.* (Cimex) *Mant. Ins.* ii, p. 298 (1787); *id.* (Lygæus) *Ent. Syst.* iv, p. 151 (1794); *Stål, Hem. Fabr.* i, p. 81 (1868).
Stoll, Pun. f. 35.

Above purplish-red; paler beneath; pronotal margins, lateral margins of corium (excluding apices), connexivum above and

beneath, and lateral margins of prosternum luteous; antennæ, transverse impressions to pronotum, scutellum, clavus, membrane, and margins of sternal and abdominal segments black or piceous; antennæ with the base of first joint reddish, fourth joint pale luteous, its apex fuscous, first joint a little longer than the second.

Var. *a.* A spot at base of head and the ground-colour of body above and beneath piceous; margins of prosternum, posterior margin of metasternum, and abdominal segmental margins ochraceous; basal joint of antennæ sanguineous beneath, femoral bases piceous.

Length 17 to 23 millim.

Hab. Ceylon (*Green*).

C. *Second joint of antennæ a little longer than first.*

862. **Odontopus sanguinolens**, *Amy. & Serv. Hém.* p. 271 (1843).

Sanguineous; second and third joints of antennæ, scutellum, clavus (sometimes only its inner area), membrane, and sternal and abdominal incisures black; fourth joint of antennæ luteous, its apex fuscous, second joint a little longer than the first.

Length 17 to 19 millim.

Hab. Madras. Trivandrum (*Brit. Mus.*). Pondichery (*Vienna Mus.*).

Genus DINDYMUS.

Dindymus, *Stål, Öfv. Vet.-Ak. Förh.* 1861, p. 196; *id. En. Hem.* i, p. 103 (1870).

Type, *D. bicolor*, Herr.-Sch., a Javan species.

Distribution. Ethiopian, Oriental, and Australasian Regions.

Eyes sessile; head convex; the incisures of the third and fourth abdominal segments moderately curved laterally; odoriferous sulcations distinct, their margins callous; lateral pronotal margins strongly reflexed.

A. *Pronotum and hemelytra broadly subovate.*

863. **Dindymus lanius**, *Stål, Berl. ent. Zeitschr.* vii, p. 401 (1863).
Dindymus thyoneus, *Kirk. & Edw. Wien. ent. Zeit.* xxi, p. 170, t. iii, f. 9 (1902).

Sanguineous; apex of second joint and the whole of third and fourth joints of antennæ, rostrum, excluding basal and base of second joints, basal margin of scutellum, a large discal spot to membrane, sternum, base of abdomen, and legs black; lateral margins of prosternum sanguineous; sternal incisures and the membrane obscure ochraceous; anterior area of pronotum defined by coarse

black punctures, posterior pronotal area sparingly punctate; corium finely and thickly punctate.

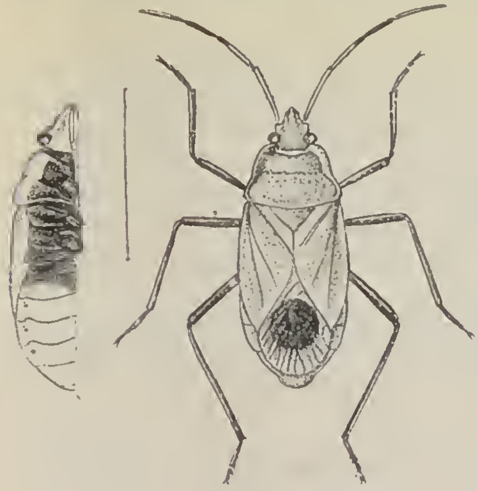

Fig. 81.—*Dindymus lanius.*

Var. *a.* Disk of posterior area of pronotum ochraceous.

Var. *b.* Membrane unicolorous, ochraceous, unspotted.

Var. *c.* Antennæ wholly black, excepting base of first joint.

Var. *d.* Resembling var. *b*, but with the abdomen beneath stramineous, its apex sanguineous.

Var. *e.* Apices of the femora and bases of the tibiæ more or less sanguineous.

Length 15 to 19; breadth between pronotal angles 5 to 6½ millim.

Hab. Assam; Nága and Khási Hills (*Chennell*). Burma; Karennee (*Fea*).—Also received from West Yunnan (*Dr. Anderson*).

B. *Pronotum and hemelytra elongate, not prominently ampliated.*

a. *Sternum with the posterior segmental margins creamy-white.*

864. **Dindymus rubiginosus**, *Fabr.* (Cimex) *Mant. Ins.* ii, p. 301 (1787); *Burm.* (Pyrrhocoris) *Handb.* ii, 1, p. 284 (1835); *Stål, Berl. ent. Zeitschr.* vii, p. 399 (1863).
Dysdercus hypogastricus, *Herr.-Sch. Wanz.* ix, p. 177, f. 979 (1853).
Var. geniculatus, *Bredd. Abh. Ges. Halle,* xxiv, p. 82 (1901).

Reddish-ochraceous or pale sanguineous; antennæ, rostrum, basal angle and large central spot to membrane, sternum, basal area of abdomen, and the legs black; the posterior margins of the three sternal segments broadly creamy-white; base of first joint of antennæ and basal joint of rostrum, excluding apex, pale sanguineous; basal margin of pronotum and the membrane pale dull ochraceous; the basal black area to the abdomen is variable in size; the abdomen beneath also varies in hue from pale sanguineous to stramineous, and in one specimen the abdominal incisures are black.

Length 10½ to 16; breadth between pronotal angles 3 to 5 millim.

Hab. Assam; North Khási Hills (*Chennell*), Nága Hills (*Butler*), Margherita (*Doherty*), Sadiya. Malabar. Burma; Palon, Karennee, Malewoon (*Fea*). Tenasserim; Thagata (*Fea*).

865. **Dindymus albicornis**, *Fabr.* (Lygæus) *Syst. Rhyng.* p. 223 (1803); *Stål, Berl. ent. Zeitschr.* vii, p. 399 (1863); *id. Hem. Fabr.* i, p. 82 (1868).

Black; antennæ fuscous, fourth joint (excluding apex) stramineous; anterior margin and two spots on posterior disk of pronotum, spots near coxæ, posterior margins of sternal segments (that to mesosternum broken), and anterior margin of prosternum creamy-white; abdomen beneath and corium beyond middle pale sanguineous; membrane obscure hyaline.

Antennæ with the first and second joints sometimes pale brownish.

Length 9 to 13; breadth between pronotal angles 3 millim.

Hab. Tenasserim; Thagata (*Fea*).—Java, Sumatra, Borneo, Philippines.

866. **Dindymus ovalis**, *Stål, Berl. ent. Zeitschr.* vii, p. 401 (1863).

Black; basal half of apical joint of antennæ, pronotum excluding the anterior area, margins of prosternum, spots near coxæ, posterior margins of meso- and metasterna, and abdomen beneath stramineous; corium obscure fuscous-red; membrane fuscous.

Length 15 millim.

Hab. "India orientalis" (*Coll. Signoret*).

I have not seen this species.

b. *Posterior margin of metasternum creamy-white.*

867. **Dindymus sanguineus**, *Fabr.* (Lygæus) *Ent. Syst.* iv, p. 155 (1794); *Stål, Hem. Fabr.* i, p. 82 (1868).
Cimex augur, var. β, *Thunb. Nov. Ins. Sp.* iii, p 58 (1784).
Dysdercus augur, *Stål, Öfv. Vet.-Ak. Förh.* 1855, p. 391.
Lygæus cruentus, *Fabr. Syst. Rhyng.* p. 225 (1803).
Pyrrhocoris hæmatidens, *Hahn, Wanz. Ins.* i, p. 9, f. 3 (1831).

This is a species closely allied to *D. rubiginosus*, and differing principally by the absence of the three pale fasciæ to the sternum, the posterior margin of the metasternum being alone stramineous; the variation is also on similar lines with that found in *D. rubiginosus*.

Length 11 to 15; breadth between pronotal angles 3 to 5 millim.

Hab. Assam; Nága Hills (*Doherty*); Harmatti, base of Dafla Hills (*Atkinson*). Burma; Karennee.—China; Hong Kong (*Coll. Dist.*).

868. **Dindymus bicolor**, *Herr.-Sch.* (Pyrrhocoris) *Wanz.* vi, p. 27, f. 585 (1842); *Stål, Berl. ent. Zeitschr.* vii, p. 398 (1863).
Cimex augur, var. *a*, *Thunb. Nov. Ins. Sp.* iii, p. 58, f. 69 (1784).
Dysdercus thoracicus, *Stål, Öfv. Vet.-Ak. Förh.* 1855, p. 391.
Dindymus azalaias, *Kirk. & Edw. Wien. ent. Zeit.* xxi, p. 169, t. iii, f. 8 (1902).

Head, antennæ, pronotum, scutellum and a small spot at base of membrane (sometimes almost obsolete) black; base of first joint of antennæ, apical area of head, and corium testaceous; membrane dull ochraceous; abdomen beneath sanguineous; sternum, discal basal area of abdomen, rostrum and legs black; posterior margin of metasternum creamy-white; rostrum passing posterior coxæ; first joint of antennæ much longer than second.

Var. *a*. Head and antennæ wholly black.

Length 9½ to 15; breadth between pronotal angles 3 to 4 millim.

Hab. Burma (*Gianetti*).—Java.

869. **Dindymus thunbergi**, *Stål* (Dysdercus), *Öfv. Vet.-Ak. Förh.* 1855, p. 391; *id. En. Hem.* i, p. 111 (1870).
Cimex augur, var. γ, *Thunb. Nov. Ins. Sp.* iii, p. 58, f. 68 (1784).

Luteous or rufous; the whole of the third and apex of the fourth joint of antennæ, rostrum, anterior transverse callosity to pronotum, basal half of scutellum, sternum, base of abdomen, tibiæ and tarsi piceous; membrane obscure whitish, bipunctated with fuscous; rostrum half as long as body; apex of scutellum luteous; corium broadened at middle, densely, coarsely punctate; sternum violaceous black, posterior margin obscurely white; femora black, apices with tibiæ luteous, tarsi fuscous.

Length 15; breadth 6 millim.

Hab. Coromandel Coast.

I have not seen this species.

c. *Sternum without pale posterior segmental margins.*

870. **Dindymus sita**, *Kirby, J. Linn. Soc., Zool.* xxiv, p. 104 (1891).

Pale reddish-ochraceous; membrane dull ochraceous; antennæ, eyes, apex of rostrum, apices of femora, the tibiæ and tarsi, and a spot near basal angle of membrane black; basal half of apical joint of antennæ stramineous; disk of basal area of pronotum sparingly darkly punctate, scutellum and corium finely and more thickly punctate.

Length 13 to 15; breadth between pronotal angles 4½ to 5 millim.

Hab. Ceylon (*Green & Lewis*).

871. **Dindymus cenæus**, *Dist. A. M. N. H.* (7) ix, p. 40 (1902).

Head, pronotum, scutellum and sternum black; antennæ, lateral (broadly) and posterior (narrowly) margins of pronotum, corium, abdomen, lateral margins of sternum, and legs pale sanguineous; clavus and a curved claval margin on corium purplish black; posterior lateral margin of corium, lateral margins of abdomen, and the membrane ochraceous; rostrum, bases of femora, a spot at the posterior apices of the third and fourth, and the central area of the fourth and fifth abdominal segments black; apical joint of the antennæ stramineous; pronotum with the anterior lobe anteriorly and posteriorly defined by a linear series of coarse punctures, posterior pronotal lobe and the corium thickly punctate, lateral margins of the pronotum and corium impunctate; anterior femora robust, spined beneath; eyes prominent.

Length 11 millim.

Hab. Nilgiri Hills, Ootacamund (*Atkinson Coll., Brit. Mus.*).

Genus **COURTESIUS**, nov.

Type, *C. illuminatus*, Dist.

Distribution. Burma.

Body narrowly ovate; head robust and, with eyes, wider than anterior margin of pronotum; eyes large, prominent, sessile; antennæ with the first joint shorter than head and a little shorter than second; rostrum slender, about reaching the posterior coxæ, basal joint about as long as head; pronotum with a distinct anterior collar, strongly transversely constricted behind middle, lateral margins laminate; hemelytra abbreviated, membrane absent, apex of corium truncate; clavus moderately well defined; legs normal, anterior femora moderately thickened; posterior margins of third and fourth abdominal segments outwardly curved and not reaching lateral margins.

872. **Courtesius illuminatus**, sp. n.

Fig. 82.—*Courtesius illuminatus.*

Black; lateral margins of the pronotum and apical margins of the corium pale luteous; lateral margins of the corium brownish-ochraceous; first joint of antennæ beneath, lateral margins of prosternum, trochanters, bases of anterior and intermediate and basal halves of posterior femora pale luteous; corium coarsely punctate, just reaching the third abdominal segment.

Length 5 to 6 millim.

Hab. Burma; Teinzo (*Fea*).

Genus DERMATINUS.

Dermatinus, *Stål, Öfv. Vet.-Ak. Förh.* 1853, p. 260; *id. Hem. Afr.* iii, p. 12 (1865); *id. En. Hem.* i, p. 103 (1870).

Type, *D. limbifer*, Stål, a South-African species.

Distribution. Ethiopian and Oriental Regions; one species recorded from China.

Body narrowly ovate; head immersed to eyes which are sessile; antennæ with the first joint shorter than the head, second joint longer than first, third shortest; pronotum transverse, trapezoidal, lateral margins narrowly laminately carinate; hemelytra abbreviated, apices truncate, membrane absent, clavus moderately well defined; legs normal.

873. **Dermatinus lugubris**, sp. n.

Fig. 83.—*Dermatinus lugubris.*

Piceous; apex of scutellum obscurely ochraceous; head, pronotum, and corium finely granulate; apices of corium straightly truncate; antennæ setose, second and fourth joints longest and subequal in length; rostrum brownish-piceous, about reaching the posterior coxæ; lateral margins of pronotum anteriorly somewhat strongly reflexed; coxæ, trochanters, bases of femora, and in a second specimen the tibiæ and tarsi, brownish-ochraceous.

Length 6 millim.

Hab. Madras; Pondichery (*Vienna Museum*).

Genus PYRRHOPEPLUS.

Pyrrhopeplus, *Stål, En. Hem.* i, pp. 103 & 115 (1870).

Type, *P. carduelis*, Stål, from China and Tibet.

Distribution. Eastern Palæarctic and Oriental Regions.

Body subelongate; head with eyes equal in width to anterior margin of pronotum; eyes small, sessile; antennæ a third part shorter than body, first joint a little longer than the second, third shortest; rostrum reaching the posterior coxæ; pronotum transverse, a little narrowed anteriorly, lateral margins laminate and reflexed, anterior transverse impressions profound, laterally obsoletely punctately connected; hemelytra complete; legs normal, anterior femora moderately incrassated and spined beneath near apices.

874. **Pyrrhopeplus pictus**, *Dist. A. M. N. H.* (7) ix, p. 41 (1902).

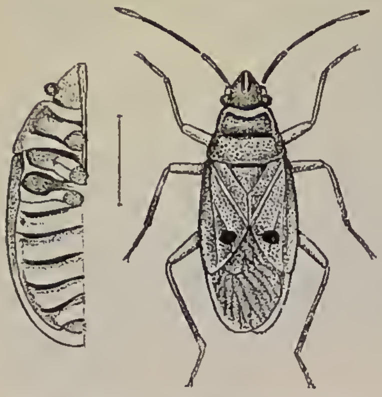

Fig. 84.—*Pyrrhopeplus pictus.*

Pale ochraceous; anterior area and lateral margins of pronotum, scutellum, lateral margins of corium, connexivum, lateral sternal margins, coxæ and femora testaceous or very dark ochraceous; antennæ, discal margins of central lobe and basal margin of head, anterior and posterior margins of anterior raised area of pronotum, basal margin of scutellum, a rounded spot on corium near anterior angle, margins of incisures to sternum and abdomen, a central fascia to head beneath, tibiæ and tarsi black; pronotum and scutellum somewhat darkly punctate; head and anterior transverse disk of pronotum impunctate, the last with its black margins thickly and coarsely punctate.

Length 9 to 11 millim.

Hab. Sikhim (*Coll. Dist.*). Sylhet (*Brit. Mus.*). Shillong, Nága Hills (*Doherty*). Burma; Karennee (*Fea*).

Genus PYRRHOCORIS.

Pyrrhocoris, *Fallén, Nov. Hem. Disp. Meth.* p. 9 (1814); *Stål, En. Hem.* i, pp. 103 & 115 (1870).
Platynotus, *Schill. Beitr. zur Ent.* i, p. 37 (1829).
Meganotus, *Laporte, Ess.* p. 38 (1832).

Type, *P. apterus*, Linn.

Distribution. Palæarctic and Oriental Regions; one species, perhaps introduced, received from Costa Rica.

In this genus the apical margin of the corium is rounded and the membrane seldom completely developed in the only species that can at present be included in this fauna.

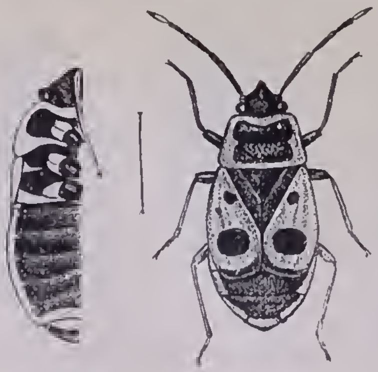

Fig. 85.—*Pyrrhocoris apterus.*

875. **Pyrrhocoris apterus**, *Linn.* (Cimex) *Syst. Nat.* ed. x, 1, p. 447 (1758); *Fabr. Syst. Ent.* p. 721 (1775); *Dist. Biol. Centr.-Am., Rhynch.* i, p. 228, t. xxi, f. 25 (1883); pro syn. cf. *Leth. & Sev. Cat. Gén. Hém.* t. ii, p. 249 (1894).

Black; margins of pronotum, corium, connexivum, sternal incisures and lateral and anterior margins of prosternum, acetabula, abdominal margin, a transverse

streak on fifth, and the posterior margin of sixth abdominal segment, and the anal segment sanguineous; corium with two rounded spots, the smallest near base, the largest on disk, and its apical margin black.

Length 9 to $10\frac{1}{2}$ millim.

Hab. Cochin (*Coll. Dist.*).—Lethierry and Severin in their Catalogue also give "India" as a habitat for this widely distributed Palæarctic species. I have previously recorded it from Costa Rica.

Genus SCANTIUS.

Scantius, *Stål, Hem. Afr.* iii, p. 10 (1865); *id. En. Hem.* i, p. 103 (1870).

Type, *S. forsteri*, Fabr., an Ethiopian species.

Distribution. Palæarctic, Ethiopian, and Oriental Regions.

Body oblong; eyes sessile; antennæ short and incrassate; rostrum with the joints of nearly equal length, first joint shorter than the head; pronotum with the lateral margins moderately acutely laminate; hemelytra either complete or incomplete, in the latter case with the membrane absent and the apex of the corium truncate; anterior femora moderately incrassate and spined beneath near apices.

876. **Scantius volucris**, *Gerstæck. in V. d. Decken's Reise*, iii, p. 413 (1873).

Piceous; lateral margins and central linear spots on basal and apical margins of pronotum, apex of scutellum, basal lateral margins of corium, anterior margin of prosternum and lateral margins of sternum and abdomen sanguineous; coxæ and disk of abdomen castaneous; first joint of antennæ considerably passing apex of head, second almost as long as first, third shortest; pronotum distinctly transversely constricted near middle; membrane absent; corium reaching the anterior margin of penultimate abdominal segment.

Fig. 86.
Scantius volucris.

Length 7 millim.

Hab. Madras (*Coll. Dist.*). Coonoor.—Brit. East Africa and Angola (*Brit. Mus.*).

877. **Scantius pallens**, sp. n.

Head, antennæ, pronotum, scutellum and corium testaceous; lateral and anterior margins and central fascia to pronotum, apex of scutellum (broadly), and lateral margins to corium pale reddish-ochraceous: abdomen above and body beneath pale sanguineous; posterior margin of sixth abdominal segment, spot on anal segment,

head beneath, rostrum, and lateral marginal spots to sternum and abdomen piceous; legs brownish-ochraceous, tibiæ and tarsi paler; apex of rostrum sanguineous; apex of second joint and the third and fourth joints of antennæ piceous; membrane absent; apices of corium obliquely truncate and about reaching the anterior margin of penultimate abdominal segment; pronotum and corium finely punctate.

Length 8 millim.

Hab. Sind (*Coll. Dist.*).

878. **Scantius obscurus,** *Dist. Tr. E. S.* 1901, p. 589.

Dark piceous, unicolorous, a little paler or dark castaneous beneath; above thickly but very finely punctate; pronotum with a broad central ridge on anterior disk, its lateral margins slightly reflexed; antennæ robust, first and second joints longest and subequal in length, third a little shorter than fourth; membrane absent; apex of corium not quite reaching the anterior margin of penultimate abdominal segments.

Length 7 millim.

Hab. Ceylon (*Coll. Dist.*).

Genus DYSDERCUS.

Dysdercus, *Amy. & Serv. Hém.* p. 272 (1843); *Stål, Hem. Afr.* p. 13 (1865); *id. En. Hem.* i, p. 103 (1870).
Astemma, *Laporte, Ess. Hém.* p. 37 (1832).
Subg. Piezodera, *Sign. Ann. Soc. Ent. Fr.* 1860, p. 953.

Type, *D. cingulatus*, Fabr.

Distribution. Nearctic, Neotropical, Eastern Palæarctic, Ethiopian, Oriental, and Australasian Regions.

Body oblong or subelongate; head immersed to eyes, which are sessile; antennæ with the first joint longer than the second; rostrum of variable length, first joint a little longer than the head; pronotum with the lateral margins moderately ampliated and reflexed; hemelytra complete, membrane with two distinct basal cells, the veins long; ventral incisures straight; anterior femora slenderly spined beneath near apex.

A. *Anterior pronotal callosity black or red.*

879. **Dysdercus cingulatus,** *Fabr.* (Cimex) *Syst. Ent.* p. 719 (1775); *id.* (Lygæus) *Ent. Syst.* iv, p. 153 (1794).
Cimex superstitiosus, *Thunb. Nov. Ins. Sp.* iii, p. 55, f. 66 (1784), excl. syn.
Cimex kœnigii, *Fabr. Syst. Ent.* p. 720 (1775).
Astemma kœningii, *Blanch. Hist. des Ins.* p. 128, pl. iv, f. 8 (1840).

Ochraceous; head, rostrum, anterior transverse callosity and

lateral margins to pronotum, and body beneath sanguineous; antennæ, apex of rostrum, scutellum (sometimes concolorous), a discal spot to corium, membrane and legs black; anterior collar to pronotum, anterior margin to prosternum, posterior

Fig. 87.—*Dysdercus cingulatus.*

margins of sternal and abdominal segments, and spots near coxæ creamy-white; extreme base of first joint of antennæ sanguineous.

Var. *a.* Anterior pronotal callosity black, not sanguineous.

In both forms the colour above also varies from ochraceous to stramineous, and beneath from sanguineous to dark purplish.

Length 9 to 16 millim

Hab. Sikhim. Assam; North Khási and Gáro Hills (*Chennell*). Karáchi. Calcutta. Bangalore (*Cameron*). Ceylon (*Green & Lewis*). Nicobar Islands; Kamorta (*Meldola*). Burma; Minhla (*Comotto*), Bhamo, Metaja (*Fea*). Tenasserim; Houngdarau valley (*Fea*), Tavoy.—Distributed throughout the Malay Peninsula and Malayan Archipelago; Queensland.

Known as *jhanga* in Cawnpore. Has attacked cotton (*Gossypium herbaceum*) in Seringapatam; bottle-gourds (*Lagenaria vulgaris*) in Cawnpore; and musk-mallow (*Hibiscus Abelmoschus*) and cabbages (*Brassica oleracea*) in Cossipore (Ind. Mus. Notes, ii, p. 106).

880. **Dysdercus olivaceus,** *Fabr.* (Lygæus) *Ent. Syst. Suppl.* p. 540 (1798); *Stål, Hem. Fabr.* i, p. 84 (1868).

Croceous; anterior callosity to pronotum, sternum, abdomen, rostrum and legs reddish-ochraceous or pale sanguineous; antennæ and tarsi black; first joint of antennæ with its base testaceous; membrane fuscous; anterior and posterior margins of prosternum, posterior margins of meso- and metasterna, and posterior areas of the ventral segments yellowish-white; basal

fasciæ (laterally abbreviated) to third, fourth, and fifth abdominal segments fuscous.

Length 14; breadth 5 millim.

Hab. "India orientalis."

I have not seen this species; it was examined and redescribed by Stål, who considered it distinct from *D. cingulatus.*

881. **Dysdercus migratorius,** sp. n.

Dull obscure ochraceous; margins of pronotum, lateral and apical margins of corium, and body beneath pale luteous; head, rostrum, coxæ, anal segment, and femora castaneous; anterior transverse callosity to pronotum, scutellum, membrane, antennæ, tibiæ and tarsi piceous; transverse segmental spots to sternum and segmental fasciæ to abdomen bright ochraceous; rostrum reaching the third abdominal segment.

Var. *a.* Body beneath uniformly pale luteous, without bright ochraceous markings.

Length 10 to 13 millim.

Hab. Ceylon (*Brown, Vienna Mus.*).—East Africa; Nyassa (*Cotterell, Coll. Dist.*).

882. **Dysdercus evanescens,** *Dist. A. M. N. H.* (7) ix, p. 43 (1902).

Very pale ochraceous; head, anterior area and lateral margins of pronotum, scutellum, lateral and apical margins of corium, and legs reddish-ochraceous; antennæ and a small round spot on the disk of corium black: body beneath pale ochraceous; lateral margins of sternum, prosternum with a spot behind the area of each eye connected by a narrow transverse line, anterior area of mesosternum, a large lateral spot to metasternum and anterior areas of abdominal segments reddish-ochraceous; abdominal marginal incisures very narrowly black; membrane pale brownish. Prosternum coarsely and roughly punctate; pronotum and corium thickly punctate, the last most finely so.

Length 17 to 20 millim.

Hab. Sikhim; Mungphu (*Atkinson*). Khási and Gáro Hills (*Chennell*). Bor Ghát (*Dixon*). Burma; Karennee (*Fea*).

In some specimens the pale ochraceous coloration is uniformly replaced by reddish-ochraceous, in this case the pronotum is unicolorous. The species may also be recognized by its large size, pale membrane, &c.

B. *Anterior pronotal callosity concolorous with remaining area of pronotum.*

883. **Dysdercus mesiostigma,** *Dist. Tr. E. S.* 1888, p. 484, pl. xiii, f. 12.

Ochraceous or reddish-ochraceous; antennæ, eyes, basal margin

of scutellum, a spot at basal angle of membrane, rostrum (excluding base), tibiæ, tarsi, anterior margin of mesosternum, and a lateral series of ventral spots black or piceous; membrane brownish-ochraceous; antennæ very narrowly reddish at base, first, second, and fourth joints subequal in length, third joint shortest; rostrum long, reaching the penultimate abdominal segment.

Var. *a*. Abdomen without the series of blackish lateral spots.

Length 19 to 22 millim.

Hab. Ceylon (*Green*).—Originally described from New Guinea (*Sayer*).

884. **Dysdercus simplex,** *Walk.* (Dindymus) *Cat. Het.* vi, p. 6 (1873); *Dist. A. M. N. H.* (7) ix, p. 42 (1902).
Dysdercus decorus, *Bredd. Allg. Zeitschr. Ent.* 1901, p. 115.

Reddish-ochraceous; head above, antennæ, clavus (excluding base), inner area of corium, membrane and legs black or piceous; inner and apical margins of corium and anterior margin of pronotum pale stramineous; bases of femora reddish-ochraceous; apex of rostrum piceous and reaching the third abdominal segment.

Var. *a*. Head above red.—Also varies in extent of black coloration to inner area of corium, which is sometimes almost obsolete.

Length 12 to 14 millim.

Hab. Nicobar Islands.—Also recorded from several islands of the Malayan Archipelago; Louisiade Islands.

Family TINGIDIDÆ.

Hemelytra more or less reticulate, consisting of strong irregular thick lines forming a framework of cells. Anterior legs inserted on the posterior margin of the prosternum. The pronotum usually covers the scutellum, but the converse is not only found in the genus *Piesma* as stated by some recent writers, but is also a character of the Indian genera *Phatnoma* and *Gonycentrum*; the tarsi are two-jointed; the antennæ are distinguished by the great length of the third joint, and by the contrasting shortness of the remaining joiuts; the rostrum when at rest is sheltered in a deep rostral canal.

The species of this very interesting family are, except in Europe, very inadequately known, but they will probably be found in considerable numbers when economic entomology is more generally studied. They are distinctly pests to plant life, but not in a very pronounced or easily discernible manner.

In the specific and generic diagnoses I have, for the sake of uniformity, followed Stål, as revised by Champion, and have used the following nomenclature for the different areas of the elytra, viz., a "discoidal" or inner area, followed by a "subcostal" or intermediate area, and a "costal" or outer area; the portion analagous to that in other families, and, in some genera of Tingididæ, represented by a distinct membrane, is named the "sutural area." This membranaceous area is sometimes distinctly defined, and in such cases I use the term "hemelytra"; when it is not sharply definable, I employ the term "elytra."

Stål has divided the Tingididæ into two subfamilies, *Piesminæ* and *Tingitinæ*; but as the first has not yet been found to be represented in this fauna, it is unnecessary to adopt these sections, especially as they have already created some confusion. Thus Saunders, in his 'Hemiptera Heteroptera of the British Islands,' correctly for his local purpose, but inadequately for a larger area, has used the covered or uncovered scutellum as a character for the subfamilies.

Division *CANTACADERARIA*.

Cantacaderaria, *Stål, En. Hem.* iii, p. 116 (1873).

Head longly produced in front of the insertion of antennæ, triangular, and above spinose; the bucculæ, or buccal laminæ, longly produced in front. Scutellum covered or uncovered.

This division at present includes only a small number of genera and species, but these are widely distributed, and our knowledge is still distinctly of a fragmentary nature.

Synopsis of Genera.

A. Pronotum with five discal carinæ; posterior margin convexly produced, covering scutellum .... CANTACADER, p. 123.

B. Pronotum with three discal carinæ; posterior margin truncate; scutellum exposed.

a. Head with porrect frontal spines; lateral pronotal margins angularly or convexly dilated; discoidal and subcostal areas of hemelytra with transversely raised lines .... PHATNOMA, p. 126.

b. Head without porrect frontal spines; lateral pronotal margins not prominently dilated; discoidal and subcostal areas of hemelytra without transverse raised lines .... GONYCENTRUM, p. 125.

Genus **CANTACADER**.

Cantacader, *Amy. & Serv. Hém.* p. 299 (1843); *Fieber, Eur. Hem.* pp. 35 & 117 (1861); *Stål, En. Hem.* iii, p. 116 (1873).
Taphrostethus, *Fieber, Ent. Monogr.* pp. 29 & 40 (1844).

Type, *C. quadricornis*, Lep. & Sev., a Palæarctic species.

Distribution. Palæarctic, Ethiopian, Oriental, Nearctic, and Neotropical Regions.

Body elongate; head elongate, triangular, buccal laminæ prominent, projecting in front of head; antennæ moderately long, first and second joints very short and incrassate, third very long, fourth moderately fusiform, about as long as first and second joints together, two spines on each side of head and the antenniferous tubercles also spined; pronotum with the frontal margin truncate, the posterior margin convexly produced behind, completely covering the scutellum, the disk with five carinæ; elytra with ill-defined clavus, but well-defined subcostal nervure; legs moderate, slender; rostrum reaching the basal abdominal area, rostral groove profound.

A. *Short lateral pronotal carinæ well separated from adjoining carinæ.*

a. *Two outer continuous discal pronotal carinæ bent outwardly.*

885. **Cantacader quinquecostatus**, *Fieb.* (Taphrostethus) *Ent. Monogr.* p. 41, pl. iii, ff. 18–22 (1844).
Monanthia subovata, *Motsch. Bull. Soc. Nat. Mosc.* xxxvi (3), p. 91 (1863); *Stål* (Cantacader), *En. Hem.* iii, p. 116 (1873).

Brownish-ochraceous; the costal and sutural areas much paler, with the interior of the areolets subhyaline; antennæ pale ochraceous, the apical joint piceous; pronotum with five longitudinal carinæ, of which the central is straight, the one on each side of this continuous and strongly bent outwardly on disk, the one on each lateral area is short with its apex directed inwardly but well separated from the adjoining carina; elytra elongate, the costal margins moderately rounded, discoidal and subcostal areas almost subequal in width; head and sternum beneath greyish, body and legs ochraceous.

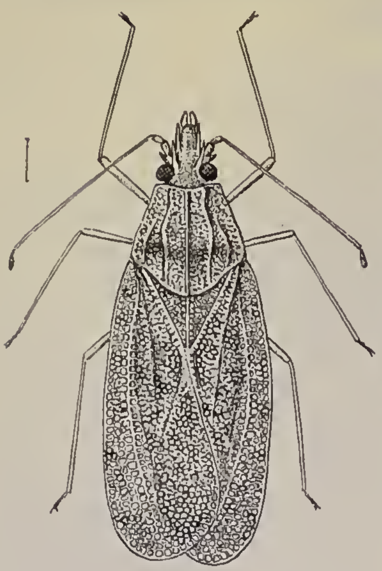

Fig. 88.
Cantacader quinquecostatus.

Length 4 to 4½ millim.

Hab. Ceylon; Peradeniya (*Green*). Fieber simply gives the habitat "Ostindien" (*Dr. Helfer*).

b. *Two outer continuous discal pronotal carinæ nearly straight.*

886. **Cantacader uniformis**, *Dist. A. M. N. H.* (7) ix, p. 353 (1902).

Brownish-ochraceous; eyes piceous; base of pronotum, an irregular central transverse fascia to hemelytra, continued along inner margin of same to apex, fuscous-brown.

Shape and form of *C. quinquecostatus*, Fieb., from which it differs by the two outer continuous carinæ of the pronotum being nearly straight, not convexly curved; a pale line on each side of claval apex, from which the adjacent discal vein is almost entirely black.

Length 5 millim.

Hab. North India (*Brit. Mus.*). Burma; Rangoon (*Fea*).

B. *Short lateral pronotal carinæ with their apices almost touching the adjoining carinæ.*

887. **Cantacader infuscatus**, sp. n.

Creamy-white, the margins of the areolets fuscous; head and space between the pronotal carinæ fuscous; antennæ mutilated in specimen described; eyes piceous; pronotum with five longitudinal carinæ, three continuous, of which the two outermost are centrally slightly bent outwardly, the one on each lateral area short with its apex directed inwardly and almost touching the adjoining carina, pronotal lateral margins somewhat laminately dilate, their anterior margins terminating in a short acute spine;

elytra with the margins of the areolets almost piceous near basal lateral margin and from centre to apex; legs obscure creamy-white; extreme apices of femora fuscous.

Length $3\frac{1}{2}$ millim,

Hab. Burma; Rangoon.

Genus **GONYCENTRUM.**

Teleia, *Fieber, Ent. Monogr.* pp. 29 & 55 (1844); *Stål, En. Hem.* iii, p. 117 (1873), nom. præocc.
Gonycentrum, *Bergr. Wien. ent. Zeit.* xvii, p. 9 (1898).

Type, *G. coronatum*, Fieb.

Distribution. At present only known from British India.*

Head rather long, triangular with a beak-shaped point; antennæ inserted at about the middle of the lateral sides of the head; rostrum extending beyond the posterior coxæ; pronotum trapeziform; scutellum and clavus distinct, uncovered; hemelytra reticulated, with the areas distinct; vertex of head passing in a curve into the obliquely lying front, which is set with short erect spines, basal area of head very convex; rostrum 4-jointed, first, second, and third joints of nearly equal length, fourth longest; antennæ with the basal joint conically incrassate, secoud scarcely half as long and almost globular, third longest, fourth about one-third as long as third joint; pronotum concavely sinuate at base of head, posterior margin nearly straight; apices of femora above produced in a short spine.

888. **Gonycentrum coronatum,** *Fieber* (Teleia), *Ent. Monogr.* p. 56, pl. iv, ff. 26–32 (1844); *Stål* (Teleia), *En. Hem.* iii, p. 117 (1873).

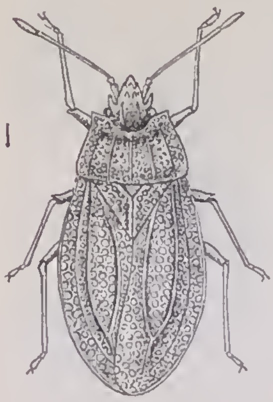

Fig. 89.
Gonycentrum coronatum.

Greyish-yellow; basal area of head with two long contiguous spines; elliptical; head blackish-brown, punctured, lateral areas whitish, with two series of small irregular areolets; pronotum with the anterior angles obtusely angulated, anterior margin deeply concavely sinuate; scutellum small, triangular, greyish-white; hemelytra dull grey; abdomen brown, apex pale brown; femora brown, yellowish at base; tibiæ brownish-yellow.

Length $2\frac{1}{2}$ millim.

Hab. "East India" (*Helfer*).

I have not seen this species, but have reproduced Fieber's figure, and endeavoured to quote the salient points of his description.

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* Bergroth (Ann. Soc. Ent, Belg. viii, p. 297, 1903) has proposed the incorporation in this genus of some African species described by myself in the genus *Phatnoma*; but this is clearly incorrect, as the characters are nearer those of *Phatnoma*, on account of the presence of raised transverse lines to the elytra. I have since founded a new genus (*Sinalda*) for their reception.

Genus PHATNOMA.

Phatnoma, *Fieber, Ent. Monogr.* pp. 30 & 57 (1844); *Stål, En. Hem.* iii, p. 117 (1873); *Champ. Biol. Centr.-Amer., Rhynch.* ii, p. 2 (1897).

Type, *P. laciniata*, Fieb.

Distribution. Oriental, Ethiopian, and Neotropical Regions.

Rostrum extending considerably beyond the metasternum; buccal laminæ prominent, projecting beyond the front of the head; antennæ moderately long, with the two basal joints short and incrassate, the third very long, the fourth moderately fusiform and longer than first and second together; head with three porrect frontal spines, two slender spines behind and two others in front, and slender spiniform antenniferous tubercles; pronotum with the base truncate, *sometimes* bisinuate, leaving the scutellum exposed, the ampliated margins generally acutely, sometimes convexly dilated anteriorly, tricarinate on disk; elytra with clavus and the usual areas well defined, discoidal and subcostal areas with transverse raised lines; legs slender.

889. **Phatnoma laciniata**, *Fieber, Ent. Monogr.* p. 57, pl. iv, ff. 33–38 (1844).

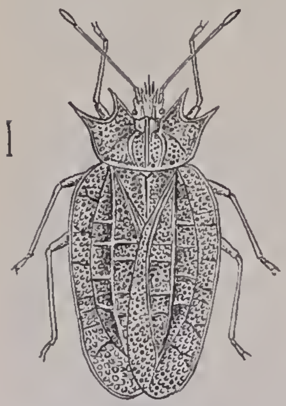

Fig. 90.
Phatnoma laciniata.

Pale brownish-ochraceous, lateral expanded areas of the pronotum and costal areas of the elytra paler; lateral pronotal areas finely areolate and produced in two strong, prominent, dentate spinous angulations, the disk with three central longitudinal carinæ, of which the two lateral are a little curved and anteriorly abbreviated; claval suture elevated; elytra with the discoidal and subcostal areas with distinct transverse raised lines; costal area thickly finely areolate; head anteriorly porrectly spinous.

Length 4 millim.

Hab. "East India" (*Helfer*). Ceylon (*S. Green*).

Division *SERENTHIARIA.*

Serenthiaria, *Stål, En. Hem.* iii, p. 116 (1873).

Head not prominently produced in front of insertion of antennæ; bucculæ or buccal laminæ not anteriorly prominent; pronotum without anterior vesicle or hood; hemelytra usually with the discal areas absent or obsoletely defined; lateral margins not or very moderately dilated.

A small division, but very imperfectly known outside the Palæarctic Region.

Synopsis of Genera.

A. Pronotum with a single carination, sometimes obsolete.
  a. Hemelytra not laterally dilated; pronotum unarmed; antennæ moderately short and robust, discoidal and subcostal areas undefined . . . . SERENTHIA, p. 127.
  b. Hemelytra with the costal areas dilated; pronotal angles spinous; antennæ long and slender; areas of hemelytra well defined . . ETEONEUS, p. 129.
B. Pronotum tricarinate . . . . PARACOPIUM, p. 128.

Genus **SERENTHIA**.

Serenthia, *Spin. Ess.* p. 168 (1837); *Amy. & Serv. Hém.* p. 300 (1843); *Stål, En. Hem.* iii, p. 117 (1873).
Agramma, *Westw. Intr. Mod. Class. Ins., Syn. Gen.* p. 120 (1840); *Fieber, Ent. Monogr.* pp. 29, 36 (1844).

Type, *S. atricapilla*, Spin., a Palæarctic species.

Distribution. Palæarctic, Ethiopian, and Oriental Regions.

Body slender, elongate; pronotum with a single carina which is often very indistinct or obsolete; orifices distinct; costal margin of the hemelytra acute, costal area somewhat ampliated, discoidal and subcostal areas undefined; femora and tibiæ subequal in length.

890. **Serenthia gibba**, *Fieber* (Agramma), *Ent. Monogr.* p. 38, pl. iii, ff. 7–11 (1844).

Yellowish-white, with two rows of dots on the middle of the vertex and a single row near each eye; antennæ yellowish-red, third joint cylindrical; pronotum very convex, process with a rudiment of the central ridge, coarsely punctured, anterior margin nearly white, on both sides of middle with a shallow furrow, brownish-red to behind lateral angles; head black, shining, above and between antennæ with two short yellow spines inclined downward, sides black, their hind margins nearly white; reticulated elytra narrow, longly produced, yellowish-white, brownish at apex, marginal area considerably ridged; abdomen brown; sternum reddish-brown, coarsely punctured, anterior margin of prosternum and posterior margin of metasternum yellowish-white; coxal pits brownish-yellow; legs rusty-yellow.

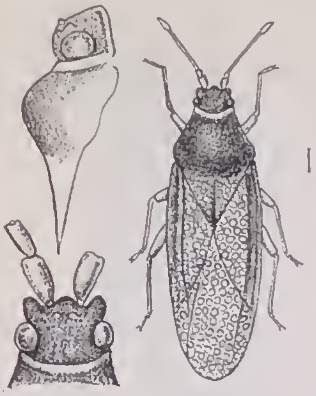

Fig. 91. —*Serenthia gibba.*

Length 2 millim.

Hab. "East India" (*Helfer*).

I only know this species by Fieber's figures and description.

Genus PARACOPIUM.

Paracopium, *Dist. A. M. N. H.* (7) ix, p. 354 (1902).

Type, *P. cingalense*, Walk.
Distribution. Oriental Region.

Antennæ very stout and robust, first and second joints stout, first longer than second, third very long, fourth a little longer than first and second together; head not produced in front of antenniferous tubercles, obscurely centrally carinate, and with two spinous carinations extending from base to about centre of inner margins of eyes; pronotum with its anterior margin truncate, a little concavely sinuate, posterior margin longly, angularly, posteriorly developed, its disk tricarinate, central carination straight, almost continuous, the two other carinations much shorter, with their apices inwardly curved before reaching anterior margin; hemelytra with the costal area only defined, the lateral margins sinuate, a little narrowed posteriorly; sutural area of a distinct membranaceous form; femora and tibiæ subequal in length.

891. **Paracopium cingalense,** *Walk.* (Dictyonota) *Cat. Het.* vi, p. 178 (1873); *Dist. A. M. N. H.* (7) ix, p. 354 (1902).

Fig. 92.—*Paracopium cingalense.*

Pale ochraceous; antennæ, eyes, and two transverse spots behind the anterior margin of the pronotum piceous; legs ochraceous, the femora brownish-ochraceous; antennæ very stout, the apical joint stoutest and globose; pronotum tricarinate (the central carination continuous, remaining two not passing anterior area), granulate, its apex areolate; elytra areolate; sutural area well defined; under surface imperfectly seen owing to specimens being carded.

Length 4 millim.

Hab. Ceylon (*Thwaites, Brit. Mus.*).

892. **Paracopium lewisi,** *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 48 (1903).

Fuscous-brown; lateral margins of the hemelytra pale hyaline, with transverse fuscous linear spots; pronotum with the lateral and anterior margins and the longitudinal carinations greyishly fuscous; membranous portion of the hemelytra with reticulate dark fuscous venation. Elongate; antennæ stout, robust, second joint more slender than first and about half its length, third joint nearly twice as long as first and second joints together, fourth joint a little more than half the length of third; head with a distinct pale central basal carination at inner margin of each eye;

pronotum with three discal longitudinal carinations, the central one straight, the lateral slightly curved; hemelytra with the margins of the discoidal area carinately defined.

Length 4 millim.

Hab. Ceylon (*Lewis*).

Differs from *P. cingalense*, Walk., by the less robust antennæ, more elongate form, darker coloration, &c.

Genus **ETEONEUS**, nov.

Type, *E. dilatatus*, Dist.

Distribution. Tenasserim.

Antennæ slender, pilose, first and second joints short, incrassate, second shorter than first, third very long, fourth considerably longer than first and second together; eyes well separated from anterior margin of pronotum; pronotum with the anterior margin truncate, the anterior angles shortly angulate or spinous, the posterior margin longly, angulately, posteriorly developed, the lateral angles distinctly spinous, a single central carination, the disk subglobosely gibbous; hemelytra with the costal area ampliated and composed of small areolets, the discoidal and subcostal areas distinctly defined, somewhat obliquely narrowed posteriorly.

893. **Eteoneus dilatatus**, *Dist.* (Serenthia) *Ann. Soc. Ent. Belg.* xlvii, p. 46 (1903).

Head dark castaneous, with an ochraceous spot behind each eye; antennæ brownish-ochraceous, the apical joint piceous; pronotum castaneous, coarsely punctate, anterior margin ochraceous, behind which is a transverse piceous fascia, apex and a central carina on posterior area ochraceous; elytra pale ochraceous, the areas defined by brownish-ochraceous margins, discoidal and subcostal areas finely granulate, costal and sutural areas finely areolate; apices of discoidal areas, a transverse central spot to costal area, and disk of sutural area infuscated; head and sternum beneath dark castaneous; legs and abdomen beneath ochraceous; antennæ very finely and obscurely pilose; pronotum with the disk convexly gibbous, distinctly constricted at anterior margin; elytra moderately convexly ampliated at lateral margins, narrowed towards apex.

Fig. 93.
Eteoneus dilatatus.

Length $3\frac{1}{2}$ millim.

Hab. Tenasserim; Myitta (*Doherty*).

Division *TINGIDARIA.*

Tingitaria, *Stål, En. Hem.* iii, p. 116 (1873).

This division is at once separated from the preceding by the presence of an anterior pronotal vesicle or hood, which in some cases completely covers the head; the areas to the hemelytra are well defined, the costal area being frequently dilated.

This is much the larger division of the Tingididæ, and is universally distributed.

Synopsis of Genera.

A. Subcostal area of hemelytra not forming an angle behind discoidal area.
  a. Pronotal hood covering head.
    a. Lateral margins of pronotum laminately produced, but neither reflexed nor concave.
      a'. Lateral dilated pronotal margins with all, or nearly all, the areolets in single series .... GALEATUS, p. 131.
      b'. Lateral dilated pronotal margins with two or three series of areolets .... CADAMUSTUS, p. 132.
    b. Lateral margins of pronotum laminately produced, reflexed, and concave .... DULINIUS, p. 133.
  b. Pronotal hood partly or almost covering head.
    a. Body longly spinous; pronotal disk irregularly carinate, enclosing foveate areas .... URENTIUS, p. 134.
    b. Body not spinous; pronotum regularly tricarinate .... COLLINUTIUS, p. 134.
  c. Pronotal hood not covering much more than base of head.
    a. Dilated pronotal margins somewhat anteriorly extended.
      a'. Body and hemelytra depressed, laminately expanded; pronotal expansion spinous; costal area much wider than discoidal area. . AMMIANUS, p. 136.
      b'. Body and hemelytra neither prominently depressed nor laminately expanded; pronotal expansions not spinous; costal not broader than discoidal area .... PHYLLONTOCHILA, p. 135.
    b. Pronotal lateral margins dilated and laminated, but not anteriorly extended. Body broad, subovate; head spinous.................... CELANTIA, p. 137.
    c. Pronotal lateral margins not laminately dilated; pronotal lateral areas globosely dilated. Body elongate; head not spinous.

a′. Hemelytra with costal area abruptly divided and laminately deflected .... BREDENBACHIUS, p. 139.
b′. Hemelytra with the costal area normal .... CYSTEOCHILA, p. 138.
d. Pronotal hood not covering base of head.
a. Body strongly spinous; margins of pronotum not dilated .... AYRERUS, p. 140.
b. Body not spinous; margins of pronotum strongly and globosely produced.......................... ELASMOGNATHUS, p. 141.
e. Pronotal hood present or absent, when present not extending over base of head; antennæ stout; costal and subcostal areas usually very narrow and uniseriate .... TELEONEMIA, p. 142.
B. Subcostal area of hemelytra forming a distinct angle behind discoidal area .... MONANTHIA, p. 144.

Genus GALEATUS.

Galeatus, *Curtis, Entom. Mag.* 1833, p. 196; *Stål, Öfv. Vet.-Ak. Förh.* 1874, n. 3, p. 48; *id. En. Hem.* iii, p. 118 (1873).
Tingis, part., *Fieb. Eur. Hem.* pp. 36, 128 (1861).

Type, *G. spinifrons*, Fall., a Palæarctic species.
Distribution. Palæarctic and Oriental Regions.

Lateral margins of the pronotum strongly and laminately produced and largely cellular, anteriorly produced in a globose vesicle or hood which hides the head, anterior disk with three carinæ, posteriorly conchately produced; head somewhat longly spinous in front; elytra vitreous, very much longer than abdomen, strongly elevated on basal disk, the costal area with single areolets, the discoidal area with the areolets duplicated; antennæ and legs long and slender.

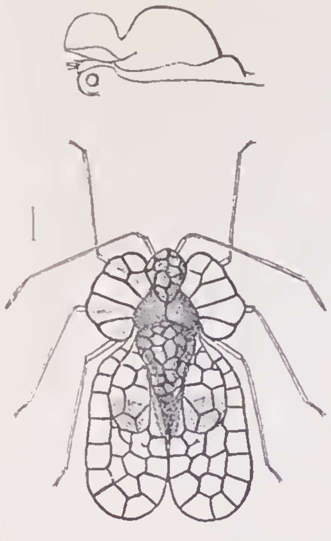

Fig. 94.—*Galeatus darthula.*

894. **Galeatus darthula**, *Kirk. J. Bombay N. H. Soc.* xiv, p. 297 (1902).

Head, pronotum, sternum and legs very pale castaneous; abdomen dark castaneous; elytra and pronotal lateral dilated margins pale talc-like, the margins of the areolets piceous, a pale castaneous macular suffusion on the disk of each elytron, where it is gibbous;

antennæ and tibiæ very pale ochraceous; apical joints of the antennæ and tarsi piceous.

Length incl. elytra 4 millim.

Hab. Ceylon; Peradeniya (*Green*).

Injures foliage of *Bartenia strigosa* (*E. E. Green*).

Genus CADAMUSTUS.

Cadamustus, *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 47 (1903).

Type, *C. typicus*, Dist.

Distribution. At present known only from Ceylon.

Head somewhat pointed at apex, but unarmed; antennæ slender, the two basal joints only slightly shorter than apical joint; pronotum with the lateral margins strongly laminately and upwardly produced, the areolets large and the outer ones subquadrate; hood convex but compressed, truncately attenuated anteriorly, covering head, connected posteriorly with a similar pronotal elevation; elytra vitreous, twice as long as the abdomen, broadened posteriorly, broadly rounded at apices, where they are more or less divergent, somewhat widely areolated, the areolets of the costal area subquadrate, longitudinally gibbous on discoidal area; rostrum passing anterior coxæ.

895. **Cadamustus typicus**, *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 47 (1903).

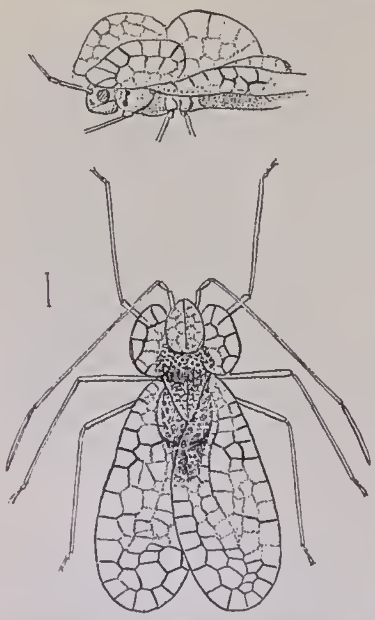

Fig. 95.—*Cadamustus typicus.*

Pale hyaline or talc-like, the margins of the areolets piceous, the abdomen piceous and more or less reflected above through the elytra; disk of the pronotum pale castaneous or pale brownish-ochraceous; lateral margins of abdomen reddish-ochraceous (in some specimens this character is obsolete); legs and antennæ very pale luteous, apical joint of antennæ and the tarsi pale ochraceous; the elytra have opaline reflections; the areolæ are large, some have piceous margins; elytral areas ill-defined or obsolete.

Length of body 2, to apex of elytra 4 millim.

Hab. Ceylon; Pundaluoya (*Green*).

In Ceylon this species punctures leaves of the cardamom plants, *Hedychium*, and allied *Scitamineæ*; it occurs also on the plantain (*Musa*). Punctured leaves have an unhealthy yellow tint (*E. E. Green*).

896. **Cadamustus suffusus**, *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 47 (1903).

Pale creamy hyaline; posterior disk of pronotum, and body as reflected above, brownish-ochraceous; margins of areolæ to elytra and lateral areas of pronotum brownish-ochraceous; elytra with opaline reflections and with a transverse fascia near base, a small lateral spot beyond middle, and a transverse suboblique fascia extending from inner angle to near outer marginal apex brownish-ochraceous: body beneath dark brownish-ochraceous, legs very pale luteous; margins of pronotal posterior elongation pale luteous; antennæ ochraceous, in structure much resembling the previous species (*C. typicus*).

Length of body $1\frac{1}{2}$, to apex of elytra 3 millim.

Hab. Ceylon; Matale (*Green*). Tenasserim: Myitta (*Doherty*).

Genus DULINIUS.

Dulinius, *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 48 (1903).

Type, *D. conchatus*, Dist.

Distribution. At present known only from Ceylon.

Rostrum reaching the posterior coxæ, rostral groove nearly reaching the posterior coxæ; antennæ very finely and longly pilose, first joint moderately incrassated and extending to about apex of head, which is anteriorly obtusely angulate; pronotum with much dilated, reflexed, concave, membranous margins, which are subvertical, shell-like, and rounded; hood large, globular, convex, covering the head, its posterior area also concavely dilated on each side; elytra entirely hyaline, about twice as long as the abdomen, obliquely widening from near base, the apical margins rounded: areolæ large, elytral areas very ill-defined.

Allied to the Neotropical genus *Dicysta*.

897. **Dulinius conchatus**, *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 48 (1903).

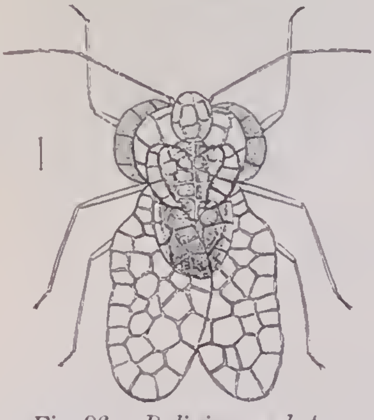

Fig. 96.—*Dulinius conchatus*.

Pale hyaline, with the margins of the areolæ pale ochraceous; hood, pronotum, extreme lateral margins of pronotum, antennæ, body and legs pale ochraceous; elytra with opaline reflections; the ochraceous lateral margins of the pronotum with distinct darker transverse spots.

Length of body 2, to apex of elytra 4 millim.

Hab. Ceylon; Batticaloa (*Green*).

The central area of this figure, though taken collectively from the three specimens on which the genus and species are founded, is

somewhat defective. Mr. Green very kindly procured me two more specimens for examination, but they were both unfortunately destroyed in transit from Ceylon.

Genus **URENTIUS**, nov.

Type, *U. echinus*, Dist.

Distribution. Ceylon.

Longly spinous, especially at the lateral margins; head with three long frontal spines; antennæ setose, short, about as long as the pronotum, apical joint subglobose; pronotum with the anterior vesicle or hood almost covering head, its disk strongly irregularly carinate, enclosing two anterior and two lateral foveate areas, lateral margins sinuate and very strongly spined; elytra obliquely narrowed posteriorly, with the discoidal and sutural areas finely granulate, their margins spinous, the costal area broad, areolate, interior of the areolets hyaline.

898. **Urentius echinus**, sp. n.

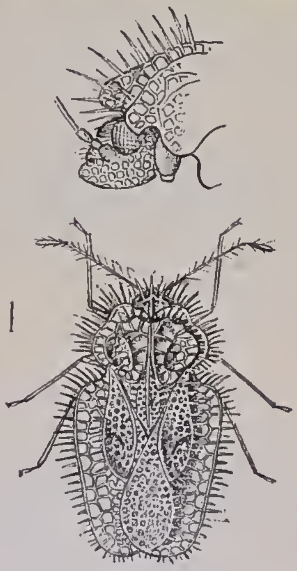

Fig. 97.
Urentius echinus.

Pale ochraceous; the areolets of the elytral costal areas hyaline; apical joint of antennæ (excluding base) brownish; body beneath and tarsal claws black; posterior margin of prosternum pale ochraceous; femora reddish-ochraceous; antennæ somewhat strongly setose.

Length 3 millim.

Hab. Ceylon (*S. Green*).

I am indebted to Mr. S. Green for a set of this species which he took during his residence in Ceylon. I have since also received the species from Mr. E. E. Green, who writes:—"Larvæ and nymphs occur on *under* surface of leaves, their presence being indicated above by a pale discoloration (loss of chlorophyll). Adult insects affect the *upper* surface of leaves."

Genus **COLLINUTIUS**, nov.

Type, *C. alicollis*, Walk.

Distribution. British India.

Pronotum with a prominent, slightly oblique porrect process, extending above and beyond the eyes; head with a prominent spine in front of eyes; antennæ somewhat longly setose, fourth joint

longer than first and second together; rostrum mutilated in specimen described; pronotum tricarinate, the lateral margins broadly and a little upwardly laminate and areolate, their margins rounded, posteriorly longly and angularly produced; elytra strongly rounded and widened from base, apical area broader than basal area, discoidal area strongly defined, the areolets small and somewhat opaque, subcostal and costal areas not definable, the areolets larger and more hyaline, a character which also applies to the sutural area.

Fig. 98.
Collinutius alicollis.

899. **Collinutius alicollis**, *Walk.* (Tingis) *Cat. Het.* vi, p. 182 (1873); *Dist.* (Phyllontochila) *A. M. N. H.* (7) ix, p. 354 (1902).

Very pale ochraceous; disk of pronotum, the abdomen, a transverse fascia crossing elytra near base from costa to margin of discoidal area, fuscous; discoidal and sutural elytral areas tinged with fuscous; apical joint of antennæ (excluding base) piceous.

Length $5\frac{1}{2}$ millim.

Hab. "Hindostan" (*Brit. Mus.*).

The unique type of this genus and species is unfortunately in a somewhat poor condition.

Genus **PHYLLONTOCHILA.**

Monanthia, subg. Pyllontocheila, *Fieber, Ent. Monogr.* p. 59 (1844).
Monanthia (part.), *Fieber, Eur. Hem.* pp. 36 & 119 (1861).
Phyllontochila (part.), *Stål, En. Hem.* iii, p. 120 (1873).
Platychila, *Fieber, in litt.*; *Puton, Synops.* 1879, p. 107.
Subg. Tingis, *Stål, En. Hem.* iii, p. 130 (1873).
Subg. Elasmotropis, *Stål, Öfv. Vet.-Ak. Förh.* 1874, no. 3, p. 54.
Sakuntala, *Kirk. J. Bomb. N. H. Soc.* xiv, p. 298 (1902).

Type, *P. ampliata*, Fieb., a Palæarctic species.

Distribution. Palæarctic, Ethiopian, Oriental, and Australasian Regions.

Head anteriorly trispinous; pronotal vesicle or hood not extending over base of head; lateral margins of pronotum more or less dilated, its disk tricarinate; elytra with the discoidal area about as wide as the costal area or occasionally slightly narrower, elytral lateral margins slightly narrowed posteriorly towards apex, apices rounded, when folded almost truncate; antennæ moderately long, first and second joints incrassate, first joint longer than second.

900. **Phyllontochila ravana,** *Kirk.* (Sakuntala) *J. Bombay N. H. Soc.* xiv, p. 298 (1902); *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 51 (1903).

Fig. 99.—*Phyllontochila ravana.*

Antennæ piceous, the third joint castaneous; head piceous, the anterior spines luteous; pronotum pale luteous, the disk and suffusion to lateral produced margins piceous; elytra with the discoidal and subcostal areas ochraceous, opaque; costal area hyaline with black-margined areolets; a transverse (sometimes broken) central fascia, preceded and followed by a small spot on costal area and a larger spot near apex of costal area, piceous; sutural area piceous mottled with luteous; body beneath, femora, and tarsi piceous, tibiæ ochraceous.

Length 6 millim.

Hab. Ceylon; Peradeniya (*Green*).

Larva and adult frequent the blossoms of *Vitex trifolia* (*E. E. Green*).

901. **Phyllontochila dentata,** *Fieber* (Monanthia), *Ent. Monogr.* p. 71, pl. vi, ff. 2–4 (1844); *Stål, En. Hem.* iii, p. 128 (1873).

Yellowish; lateral areas of pronotum broad, quadrangular, their margins tridentate, lateral ridge straight, shortened anteriorly; reticulated elytra oval, finely pilose, marginal area broadened posteriorly, with a large brown spot before middle and another near apex, several smaller spots on the central and lateral areas; head and antennæ concealed; anterior margin of pronotum with a quadrangular projecting hood, disk of pronotum transversely convex, finely punctured, ridge very slightly elevated, lateral ridges abbreviated in front, the lateral areas very broad, leaf-like, quadrangular, truncated anteriorly, with a dentate point on neck, and with three similar angulations on lateral margins; lateral angles with five series of small areolets, several of which form a brown spot at the posterior angle: body beneath and legs obscure yellow.

Length 5 millim.

Hab. "East India" (*Helfer*).

I only know this species by Fieber's figure and description.

Genus **AMMIANUS**, nov.

Type, *A. erosus*, Fieb.

Distribution. Oriental and Ethiopian Regions.

Allied to *Phyllontochila*, but differing by the more depressed and laminately expanded body and elytra, the much more produced

and angulated or spined lateral margins of the pronotum, the elytra with the costal area very broad, much wider than the discoidal area, the elytral lateral margins not narrowed posteriorly, elytral apices oblique and when folded centrally sinuate.

In this genus I include *Phyll. perakensis*, Dist., and the Ethiopian *P. dilatata*, Guér., and allies.

902. **Ammianus erosus**, *Fieber* (Monanthia), *Ent. Monogr.* p. 74, pl. vi, ff. 5-9 (1844); *Walk.* (Tingis) *Cat. Het.* vi, p. 181 (1873); *Dist.* (Phyllontochila) *A. M. N. H.* (7) ix, p. 355 (1902).

Fig. 100.—*Ammianus erosus.*

Head and anterior pronotal vesicle grey with some fuscous markings; antennæ brownish-ochraceous; pronotum castaneous, its disk piceous, the basal area of the dilated pronotal margins irrorated with pale hyaline areolets; elytra with the discoidal and subcostal areas castaneous, opaque, the costal area hyaline; margins of areolets, a broad transverse fascia before middle, and apex piceous, sutural area piceous; body beneath and legs piceous; tibiæ brownish-ochraceous.

Length 7 millim.

Hab. "Ostindien" (*Helfer*, fide *Fieber*). Burma; Bhamo (*Fea*).

Genus **CELANTIA**, nov.

Type, *C. vagans*, Dist.

Distribution. Ceylon.

Head spinous, a long porrect spine arising at base of head and extending beyond its apex, a long curved spine from behind each eye, and a smaller spine near each antenniferous tubercle; pronotum with the anterior vesicle or head not extending beyond base of head, sublunate, with its apical margin truncate; pronotal lateral margins laminate, areolate, pronotal disk tricarinate; antennæ very long, much more than half the length of the body, apical joint about as long as first and second joints together; elytra with the subcostal area narrow, the discoidal area concave, costal area broad, areolets somewhat large.

Allied to the Neotropical genus *Leptodictya*, Stål, from which it differs by the very long antennæ, different structure of the pronotum, &c.

903. **Celantia vagans**, *Dist.* (Leptodictya) *Ann. Soc. Ent. Belg.* xlvii, p. 48 (1903).

Ovate, the margins of the pronotum and elytra convex; antennæ ochraceous, the apical joint piceous; head ochraceous; eyes piceous; pronotum with the disk castaneous, the hood and carinæ ochraceous, lateral marginal areas and posterior area very pale

luteous, the last thickly reticulated with piceous, and the reticulations of the lateral areas more or less fuscous; elytra very pale luteous or creamy-white, the discoidal areas thickly obscurely granulate and piceous towards base and apex, a central piceous suffusion to costal and sutural areas, the last subhyaline, the reticulations beyond middle and at apex and inner apical areas piceous; legs ochraceous, tarsi piceous: body beneath pale castaneous with piceous markings (imperfectly seen—carded specimen). Head with five long spines, the lateral spines moderately recurved, the other spines directed straightly forward; pronotal lateral areas laminate, convex, reticulate, hood not quite reaching middle of pronotum; elytral marginal areas convexly ampliated at middle, attenuated anteriorly and posteriorly.

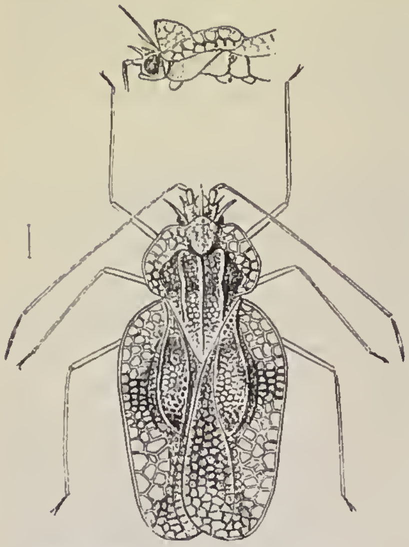

Fig. 101.—*Celantia vagans.*

Length 3 millim.

Hab. Ceylon (*Lewis*).

Genus **CYSTEOCHILA**.

Cysteochila, *Stål, En. Hem.* iii, pp. 121 & 129 (1873).

Type, *C. tingoides*, Motsch.

Distribution. Ethiopian and Oriental Regions.

Lateral margins of the pronotum reflexed, not produced; apices of femora not spined; buccal laminæ prominent; pronotal carinæ prominent and subparallel; body with hemelytra oblong or elongated.

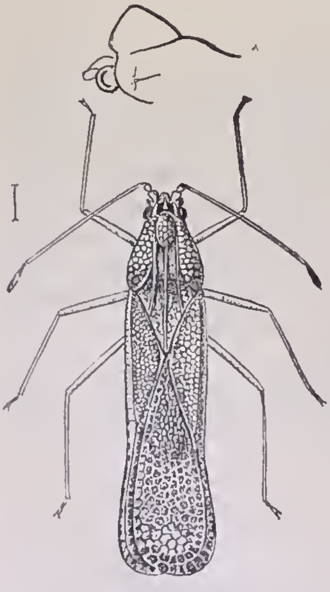

Fig. 102.
Cysteochila elongata.

904. **Cysteochila elongata**, *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 49 (1903).

Pale brown; antennæ ochraceous, apical joint, excluding base, piceous; head black, interior margins of eyes luteous; apex of pronotum, apices of discoidal areas, small lateral spots to costal membrane, and a few subapical areolæ to elytra luteous or creamy-white; meso- and metasterna

and abdomen beneath black; legs ochraceous; body elongate; pronotum with three central longitudinal carinæ, the hood and lateral areas coarsely granulate; elytra with the discoidal areas coarsely granulate, the apical areas finely areolate, the lateral margins a little concavely sinuate before apices; sternum finely granulate.

Length 3 millim.

Hab. Assam; Margherita.

905. **Cysteochila nexa,** *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 49 (1903).

Head and disk of pronotum castaneous; apical area of pronotum and the elytra pale brownish, the last with the costal membrane irrorated with creamy-white areolets; body beneath piceous, the sternum thickly greyishly pilose, legs ochraceous; antennæ with the basal joint ochraceous, remaining joints mutilated in type specimen; pronotum with a single pale longitudinal carina, the two lateral carinæ covered by the lateral vesicles and only posteriorly visible, the lateral areas and hood concavely granulate; elytra with the discoidal and costal areas granulate, apical areas more thickly and finely granulate; the elytral areas defined by more or less ochraceous margins.

Length 3 millim.

Hab. Assam; Margherita.

906. **Cysteochila tingoides,** *Motsch.* (Monanthia?) *Bull. Soc. Nat. Mosc.* xxxvi, p. 92 (1863); *Stål, En. Hem.* iii, p. 129 (1873).

"Depressed, elongate, subparallel, excavately cellular, opaque, carinate, obscure whitish, somewhat fuscously variegated; eyes, head posteriorly, and prolongation of the pronotum black; rostrum, antennæ and legs reddish; carinæ somewhat white; head short, subtriangular, unarmed, eyes moderate in size, oblong, somewhat prominent, granulate; antennæ with the first joint a little shorter than the head, incrassate; pronotum with the anterior margin equal in width to head, whitish, posteriorly ampliately dilated, on each side laterally covered with an inflated vesicle, medially black, tricarinate; hemelytra elongate, nearly parallel, apices rounded, with posterior subapical lateral hyaline spots: body beneath black, annulated with ferruginous, opaque; femora moderately clavate."

Length "$1\frac{2}{5}$ l."

Hab. Ceylon; Newera Ellia Mts. (*fide Motschoulsky*).

I have not seen this species, but Stål has recorded a Ceylonese specimen in the Stockholm Museum, and referred it to *Cysteochila*.

Genus **BREDENBACHIUS.**

Bredenbachius, *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 50 (1903).

Type, *B. pictus*, Dist.

Distribution. Tenasserim.

Broadly elongate: elytra much longer than abdomen; pronotum with the apex broadly triangular, its lateral areas globosely dilated

as in *Cysteochila*, but directed obliquely outward; elytra with the costal area abruptly divided and laminately deflected from the discoidal area.

Allied to *Cysteochila*, but differing in the structure of the pronotum and elytra as above detailed.

907. **Bredenbachius pictus**, *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 50 (1903).

Fig. 103.
Bredenbachius pictus.

Head and antennæ ochraceous, apical joint of antennæ, excluding base, piceous; pronotum castaneous, anterior area, apex and central carinæ pale creamy-white; elytra creamy-white, disk of discoidal area infuscated, a central elongate piceous spot to costal area, sutural area infuscated, pale at base and apex; body beneath piceous, legs ochraceous; pronotum with three central carinæ, the median one procurrent and straight, the two lateral carinæ commencing from inner margin of lateral globose areas and deflected towards posterior apical margins, giving the prolongation a scutellate appearance, the disk is coarsely punctate, the lateral areas foveately reticulate; elytra reticulate, the areolets distinct, those on the costal membrane transversely quadrate apical joint of antennæ setose.

Length 3 millim.

Hab. Tenasserim; Myitta (*Doherty*).

Genus AYRERUS, nov.

Type, *A. hystricellus*, Richt.

Distribution. Ceylon.

Allied to *Urentius*, but differing by the totally uncovered head, the disk of pronotum covered with two large vesicular processes, lateral margins not sinuate.

My knowledge of this genus is confined to the figure given by Richter, which is unfortunately accompanied by no description. Referring, however, to the "complete armature of spines, which project from various parts of the head, thorax, and elytra," he further remarks: "Each of these spines, when examined by a somewhat higher power, is found to have a sharp point or seta, projecting as from the open end of an investing sheath."

908. **Ayrerus hystricellus**, *Richter* (Tingis), *Hardwicke's Sci. Gossip*, v, p. 84, f. 25 (1869); *S. Green* (Tingis), *op. cit.* xviii, p. 161 (1882).

Neither description nor dimension is given of this species, which, however, appears to be admirably figured, and the figure is here reproduced.

Hab. Ceylon (*Staniforth Green*).

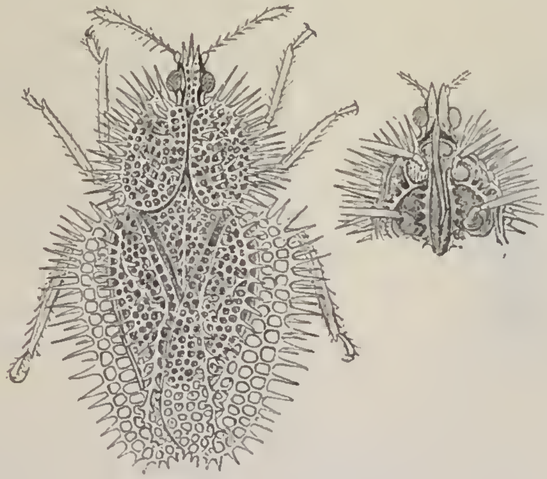

Fig. 104.—*Ayrerus hystricellus.*

The description of this species, from its little known medium of publication, has escaped the notice of entomologists and appears in no record or catalogue. It was found by Mr. S. Green on the underside of the Brinjál leaf (*Solanum melongena*), where it "undergoes all its changes from the larval to the perfect state."

Genus ELASMOGNATHUS.

Elasmognathus, *Fieber, Ent. Monogr.* pp. 30 & 90 (1844); *Stål, En. Hem.* iii, p. 121 (1873).

Type, *E. helferi*, Fieb.

Distribution. Oriental and Ethiopian Regions.

Head spined at the antenniferous tubercles, and with a short suberect central spine near base; pronotum with the anterior vesicle or hood not covering base of head, lateral margins very strongly and globosely produced, the processes anteriorly directed, tricarinate, the lateral carinæ very short; antennæ with the first joint strongly incrassated, as long as or slightly longer than the second; apices of femora very prominent above at insertion of tibiæ, sometimes spinous.

A. *Pronotal produced margins globose; elytra broadened posteriorly; apices of femora prominent.*

909. **Elasmognathus greeni,** *Kirby, J. Linn. Soc., Zool.* xxiv, p. 109 (1891); *Kirk. J. Bombay N. H. Soc.* xiv, p. 297 (1902).
Elasmognathus pallidus, *Kirby, tom. cit.* p. 110.

Black; antennæ, anterior pronotal vesicle, apex of posterior pronotal elongation, costal membrane, and legs stramineous; basal joint of antennæ (excluding apex), apical joint of antennæ (excluding base), transverse lines and a large median and apical spot to costal membrane, and the tarsi black.

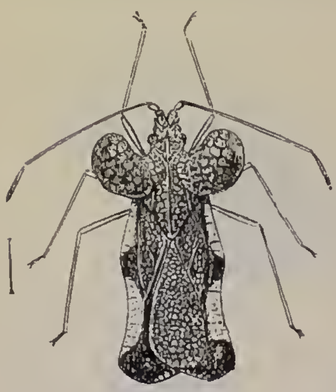

Fig. 105.
Elasmognathus greeni.

Var. Pale testaceous; head above black; pronotum with anterior vesicle and produced lateral margins nearly white.

Length $5\frac{1}{2}$ to 6 millim.

Hab. Ceylon; Pundaluoya and Nitagala (*Green*).

This species punctures the leaves of the cultivated pepper vine (*Piper nigrum*). It makes the leaves look spotted with brown along the lines of the main veins, but does not appear to seriously injure the health of the plant. The insect feeds on the under surface of the leaf. It occurs both on cultivated and wild pepper throughout Ceylon. (*E. E. Green.*)

B. *Pronotal produced margins foveate above; elytra somewhat narrowed posteriorly; apices of femora spined.*

910. **Elasmognathus helferi,** *Fieber, Ent. Monogr.* p. 91, pl. vii, ff. 33–41 (1844).

Differing from the preceding species, according to Fieber's figure, by the foveate and shell-like produced pronotal margins, the somewhat narrowed apical areas of the pronotum, the more reticulate areolation of the costal area of elytra and smaller size of the median and apical spots to same, strongly spined apices of the femora, &c.

Length 6 millim.

Hab. "Ostindien" (*Helfer*, fide *Fieber*).

I have not seen this species.

Genus **TELEONEMIA.**

Teleonemia, *Costa, Ann. Mus. Zool. Napoli,* ii, p. 144 (1864); *Stål, En. Hem.* iii, pp. 122 & 131 (1873); *Champ. Biol. Centr.-Amer., Rhynch.* ii, p. 34 (1898).
Subg. Amaurosterphus, *Stål, Hem. Fabr.* i, p. 92 (1868); *id. En. Hem.* iii, p. 131 (1873).
Subg. Teleonemia, *Stål, En. Hem. loc. cit.*

Type, *T. funerea*, Costa, from an unknown locality.

Distribution. Nearctic, Neotropical, Oriental, and Ethiopian Regions.

For the inclusion of some Central American species, Champion has rather enlarged the characteristic limits of this genus, and I with some further latitude follow his diagnosis. Narrow and elongate; head obtuse, usually with five more or less distinct spines; antenniferous tubercles somewhat prolonged; antennæ rugulose, in some species pilose, stout, the third joint variable in length, usually somewhat truncate at apex, fourth joint long, more or less lanceolate or oval; pronotum tricarinate, with or without a hood; discoidal area extending to beyond the middle of the elytra, the subcostal and costal areas in the typical species very narrow and uniseriate, but sometimes broader and with more numerous areolets; elytra much longer than abdomen.

911. **Teleonemia assamensis,** *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 49 (1903).

Pale ferruginous; antennæ castaneous; head above greyishly pilose, eyes and a spot between them black; anterior and lateral margins of the pronotum narrowly pale luteous, anterior pronotal area with a gibbous convex callosity very coarsely punctate, behind which, on each side, are two small transverse black lines, its marginal areas greyish; pronotum profoundly tricarinate, posteriorly punctate between the carinations; hemelytra with the discoidal area coarsely punctate, remaining surface finely areolate, lateral margins finely and palely cellular; body beneath piceous, greyishly pubescent, especially on sternum; legs pale castaneous.

Fig. 106.
Teleonemia assamensis.

Length 4 millim.

Hab. Assam; Margherita.

912. **Teleonemia atra,** *Motsch.* (Monanthia) *Bull. Soc. Nat. Mosc.* xxxvi, p. 91 (1863); *Dist. A. M. N. H.* (7) ix, p. 356 (1902).

Head and pronotum (excluding basal prolongation) black; basal prolongation of pronotum and hemelytra areolate, brownish grey, margins of areolets fuscous; antennæ, carination to head and pronotum, anterior and lateral margins of pronotum, legs, and body beneath pale stramineous; lateral regions of abdomen (excluding base) and sternum black, the connexivum above and beneath finely spotted with pale stramineous. In some specimens the basal prolongations of the pronotum and hemelytra are shining greyish, the sutural area alone being brownish grey.

Length 3 millim.

Hab. Ceylon (*Green*).

Genus MONANTHIA.

Monanthia, *Lepell. & Serv. Encycl. Méth.* x, p. 653 (1825); *Stål, Öfv. Vet.-Ak. Förh.* 1874, n. 3, p. 58.

Type, *M. echii*, Schranck, a Palæarctic species.
Distribution. Palæarctic, Ethiopian, and Oriental Regions.

Hemelytra with the subcostal area distinctly forming an angle at apex of discoidal area, discoidal area near middle with a transverse divisional vein; pronotum with the lateral margins strongly reflexed, sometimes, as in the species here included, somewhat strongly inflated; hemelytra with subbasal elevations; antennæ slender, apical joint fusiform, its base slender.

913. **Monanthia globulifera**, *Walk.* (Tingis) *Cat. Het.* vi, p. 182 (1873); *Dist. A. M. N. H.* (7) ix, p. 356 (1902).

Dull obscure ochraceous; pronotum with disk piceous, margins of areolets to dilated lateral margins and to the apical sutural area black: hemelytra with the areolar margins to discoidal and sutural areas piceous, the foveate disk to discoidal area also more or less piceous, costal area hyaline, uniseriate, transverse veins black: body beneath black; legs ochraceous; posterior margin of metasternum and lateral margins of abdomen dull luteous; antennæ pale ochraceous, apical joint a little darker; hemelytra with a large subbasal foveate callosity.

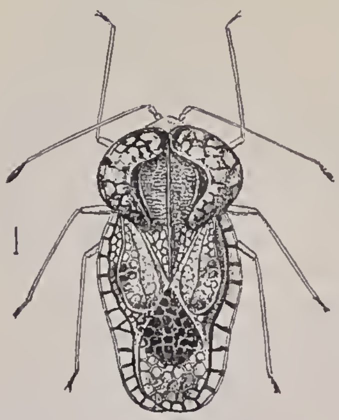

Fig. 107.
Monanthia globulifera.

Length 3 millim.

Hab. Madras (*Elliot, Brit. Mus.*). Ceylon (*Green*). At Madras this insect lives on heliotrope (*Elliot*).

914. **Monanthia nilgiriensis**, *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 51 (1903).

Pale hyaline; head and lateral convex margins of the pronotum piceous; disk of pronotum, abdomen above and body beneath black; lateral areas of pronotum hyaline, the margin of the areolets and a transverse fascia from disk to margins piceous; elytra hyaline, the margins of the areolets mostly piceous, margins of the discoidal area and a large raised globular discoidal spot piceous; sutural area piceous, margined with pale areolets and containing two distinct central white spots; legs, antennæ, and anterior area of pronotal dilatation beneath with marginal spots to same ochraceous; apical joint of antennæ and posterior femora piceous. The pronotum is roundly and much dilated, with reflexed, concave, membranous margins, which are subvertical,

shell-like and rounded ; head uncovered ; the globular elevations to discoidal area of elytra presenting a small central concave spot.

Length, body 4 millim. ; to apex of elytra 5 millim. ; exp. pronotum 3 millim.

Hab. Nilgiri Hills (*Hampson*).

915. **Monanthia ? fasciata**, *Fieber, Ent. Monogr.* p. 84, pl. vii, ff. 13–16 (1844).

Obscure yellow, moderately long, hood with a pointed projection ; pronotum very convex, lateral areas raised, leaf-like ; head black, spines on vertex yellow, the three anterior ones on and over each other ; rostral sheath, sides of head, and the short tuberosities before eyes yellow ; antennæ whitish-yellow and very finely pilose, apical joint brownish ; pronotum transversely convex, the raised leaf-like marginal areas with quadrangular areolets, and set with horizontal diverging bristles, middle ridge depressed on the hood, lateral areas almost semicircularly raised to above the level of the lateral angles ; areolated elytra curved outwards, undulately narrowed posteriorly, at inner angle of central area a narrow brown transverse fascia extending to outer margin, near apex an oblique marginal spot ; sternum mostly whitish-yellow ; abdomen brown or yellowish-brown ; legs whitish-yellow ; femora with brown medial annulations ; tibiæ with their apices brown.

Length 4 millim.

Hab. East India (*Helfer*).

I only know this species from Fieber's figure and description. It may probably represent a new genus.

Species of uncertain position.

Cymus basicornis, Motsch. Bull. Soc. Nat. Mosc. 1863, p. 90.

Hab. Ceylon.

This species is described under the name of a genus of Lygæidæ, but placed in the "Tingides" by Motschoulsky. I have quite failed to identify it and its position is enigmatical.

Family PHYMATIDÆ.

Anterior legs short and stout, with long coxæ, short thick femora, and curvate pointed tibiæ; frequently without tarsi.

These are predatory insects. Uhler (Bull. U.S. Geol. & Geogr. Surv. iii, p. 428, 1877) found some species in Colorado, generally "prowling about upon the stems and flowers of the Euphorbias and sunflowers, trying to catch the bees and other insects which alighted there."

Four genera and thirteen species are here enumerated, which in this small family is probably a fairly representative number for British India.

Synopsis of Genera.

A. Body not spinose.
  a. Anteocular portion of head shorter than postocular portion.
    a. Abdomen dilated, not perceptibly longer than broad. Scutellum half as long as abdomen .... AMBLYTHYREUS, p. 146.
    b. Abdomen not dilated, about twice as long as broad. Scutellum scarcely reaching to a third part of abdomen. CNIZOCORIS, p. 149.
  b. Anteocular and postocular portions of head about equal in length. Scutellum reaching apex of abdomen .... GLOSSOPELTA, p. 150.
B. Body spinose .... CARCINOCORIS, p. 151.

Genus AMBLYTHYREUS.

Macrocephalus, subgen. Amblythyreus, *Westw. Tr. E. S.* iii, p. 30 (1843).
Amblythyreus, *Amy. & Serv. Hém.* p. 291 (1843); *Stål, En. Hem.* v, p. 131 (1876); *Handlirsch, Ann. Hofmus. Wien,* xii, p. 209 (1897).
Mecodactylus, *Fieber, Eur. Hem.* p. 34 (1861).

Type, *A. rhombiventris*, Westw.
Distribution. Oriental Region.

Head long, margins subparallel, postocular portion much longer than anteocular; ocelli distinct, placed near middle of postocular area; antennæ short, robust, apical joint longest, stoutest, and fusiform, second shortest, subglobose, first regularly incrassated; rostrum just passing base of head, first and second joints subequal, third very short; pronotum sinuately narrowed to apex from lateral angles, which are prominent, subacute, lateral margins serrate, anterior angles prominent, anterior margin concavely sinuate, posterior margin a little sinuate, about as wide as base of scutellum, posterior disk with two diverging central carinæ; scutellum somewhat short, broad, its apex convexly rounded, its lateral margins

straight; abdomen more or less angularly dilated on each side; membrane reaching or slightly passing abdominal apex; anterior coxæ longer, only a little shorter than femora.

916. **Amblythyreus angustus**, *Westw. Tr. E. S.* iii, p. 31 (1843); *Handl. Ann. Hofmus. Wien*, xii, p. 212, f. 29 (1897).

Pale ochraceous; head above and antennæ piceous; a central longitudinal fascia and posterior area to pronotum and a central transverse fascia to connexivum piceous-brown; corium very pale brownish; membrane shining cupreous; first joint of antennæ regularly incrassate, second joint subglobose, attenuated at base, slightly shorter than third, fourth prominently incrassate, fusiform, about as long as the other joints taken together; lateral margins of pronotum serrate, connexivum widely and angularly dilated; width of scutellum at base less than length of head.

Fig. 108.
Amblythyreus angustus.

Length $11\frac{1}{2}$ to 12; breadth between pronotal angles $4\frac{1}{2}$ millim.

Hab. Assam; North Khási and East Gáro Hills (*Chennell*).

917. **Amblythyreus gestroi**, *Handl. Ann. Hofmus. Wien*, xii, p. 211 t. ix, f. 52 (1897).

Head, antennæ and pronotum piceous; base and apex of apical joint of antennæ, posterior area of pronotum, and the corium more or less castaneous; anterior lateral margins of pronotum, scutellum, connexivum, head and body beneath, rostrum, and legs luteous; a small spot at basal angles of scutellum and a broad transverse fascia at middle of connexivum black; abdomen above ochraceous, apex and a discal longitudinal fascia black; membrane pale shining cupreous.

Closely allied to the preceding species, *A. angustus*, Westw.; antennæ less robust, pronotal lateral angles a little more acutely produced.

Var. Basal joint of rostrum, head beneath, lateral angles of prosternum, a marginal spot at extreme dilatation of abdomen, and abdominal apex piceous-black.

Length 11; breadth between pronotal angles 4 millim.

Hab. "East India" (*Coll. Dist.*). Burma; Karennee (*Fea*).

918. **Amblythyreus stalii**, *Handl. Ann. Hofmus. Wien*, xii, p. 209, t. ix, f. 49 (1897).

Reddish-yellow; posterior margin and angles of pronotum

transverse band to abdomen above and antennæ dark brownish-red; head and fourth joint of antennæ blackish above; corium reddish-yellow; legs yellow; head long; rostrum with the first and second joints nearly equal; antennæ thick, first joint comparatively short, twice as long as broad, second joint $2\frac{1}{2}$ times, third twice, fourth scarcely more than three times as long as broad, twice as long as second and third together; pronotum subtriangular, $1\frac{2}{3}$ times as broad as long, a distinct impressed medial line on anterior area, two middle keels distinct, obsolete before and behind, lateral angles pointed and triangular, directed a little upward and backward; anterior coxæ only a little shorter than femora; scutellum flat, only about one-sixth longer than broad, without keel; membrane fuscous, nervures darker; connexivum with its first and second segments projecting at hind angles, that of third segment angularly produced.

Length 11 millim.

Hab. Poudichery (*Vienna Mus.*).

I have not seen this species.

919. **Amblythyreus quadratus**, *Westw. Tr. E. S.* iii, p. 31 (1843); *Handl. Ann. Hofmus. Wien*, xii, p. 212 (1897).

Ochraceous; lateral pronotal angles and a spot on extreme dilatation of connexivum piceous; head and antennæ brownish-ochraceous, the last with the base of apical joint pale ochraceous; scutellum broad, about as long as head, about as broad at base as long; abdomen somewhat widely dilated, obtusely angulate at its extreme dilatation, where its width is about equal to its length; head finely granulate; posterior area of pronotum coarsely punctate; lateral pronotal angles subacute and a little upwardly reflexed.

Length 10; breadth between pronotal angles 4 millim.

Hab. "East Indies" (*Mus. Oxford & Vienna*).

920. **Amblythyreus intermedius**, *Handl. Ann. Hofmus. Wien*, xii, p. 210, t. vi, f. 7, t. ix, ff. 50, 51 (1897).

Allied to *A. rhombiventris*, Westw.; abdomen widely dilated, acutely, not obtusely, angulate at its extreme dilatation, where its width is considerably greater than its length; scutellum short, broad, about as long as head, but longer than broad at base; a broad piceous transverse fascia at centre of connexivum; post-ocular area of head not piceous; posterior margin of pronotum less broadly piceous.

Length 10 to 12 millim.

Hab. Bengal. Trichinopoly. Kodaikanál, Palni Hills (*fide Handlirsch*).

I only know this species by the description and beautiful figure given by Handlirsch.

921. **Amblythyreus rhombiventris**, *Westw. Tr. E. S.* iii, p. 30, pl. ii, f. 8 (1843); *Handl. Ann. Hofmus. Wien*, xii, p. 211, f. 28 (1897).

Ochraceous; upper surface of postocular area of head, posterior margin of pronotum, including lateral angles, a spot on extreme abdominal dilatation and another at apex of connexivum piceous; corium and abdomen above testaceous; membrane shining cupreous; scutellum short, broad, sinuate at base, about as long as head, and almost as broad at base as long; abdomen widely dilated, obtusely angulate at its extreme dilatation, where its width is considerably greater than its length; head finely granulate; posterior area of pronotum coarsely punctate, lateral pronotal angles subacute and a little posteriorly directed.

Length 13; breadth between pronotal angles 5 millim.

Hab. "India" (*Mus. Oxford*).

The type is now labelled "ex Linn. Soc. Sale."

Genus **CNIZOCORIS**.

Cnizocoris, *Handl. Ann. Hofmus. Wien*, xii, p. 213 (1897).

Type, *C. davidi*, Handl., from Tibet.

Distribution. Oriental and Eastern Palæarctic Regions.

Allied to *Amblythyreus*, but with the abdomen not dilated, almost elliptical, and twice as long as broad; scutellum shorter, not extending beyond a third of the abdominal length.

Fig. 109.
Cnizocoris stenocephalus.

922. **Cnizocoris stenocephalus**, *Handl. Ann. Hofmus. Wien*, xii, p. 214, t. ix, ff. 53, 63 (1897).

Head and antennæ blackish-brown, thorax yellowish-brown beneath and reddish-brown above, darker in middle and on margins; margins of sternum blackish in upper parts; scutellum reddish-brown; abdomen yellowish-brown beneath, black above; connexivum uniformly brownish; legs yellowish-brown, partly darkened; rostrum brown.

Length 10 millim.

Hab. Darjeeling (*Paris Mus.*).

I have not seen the unique type, but have to thank Mons. Joanny Martin, of the Paris Museum, for very kindly providing me with the accompanying figure of the same.

Genus GLOSSOPELTA.

Glossopelta, *Handl. Ann. Hofmus. Wien*, xii, p. 215 (1897).

Type, *G. acuta*, Handl.

Distribution. Oriental Region.

Head very long, anteocular as long as postocular portion; scutellum very long, reaching apex of abdomen, its apex truncate; abdomen slightly or prominently dilated on each side. Very peculiar and distinct characters exist on the underside of the head, as described by Handlirsch, but as the primary end of this book is to afford the easiest means of recognition by which the British Indian species may be identified, they are not further alluded to in this place.

923. **Glossopelta truncata**, sp. n.

Fig. 110.—*Glossopelta truncata.*

Pale brownish-ochraceous; posterior area of pronotum and bases of scutellum and corium infuscate; antennæ mutilated in specimen described; pronotum with a very broad and profound central sulcation extending over rather more than posterior half, the sulcated area moderately punctate, the remaining posterior area very coarsely punctate, anterior angles subacutely porrect, posterior angles broadly truncate; scutellum with a narrow central carination, broadened near base, where there is also a transverse carination, lateral margins strongly concavely sinuate before middle, its whole surface finely granulate, more coarsely so near base; connexivum convexly ampliated on each side.

Length 11; breadth between pronotal angles 4 millim.

Hab. Burma; Ruby Mines (*Doherty*).

924. **Glossopelta acuta**, *Handl. Ann. Hofmus. Wien*, xii, p. 216, t. vi, f. 4, t. ix, ff. 55, 56, 65 (1897).

Dull ochraceous; head, anterior lobe of pronotum, connexivum, body beneath, and legs reddish-ochraceous; antennæ pale, with the apical joint longer than the two preceding joints taken together; pronotum with the anterior angles short, obtusely porrect, lateral angles obtusely angulate and with a short angulate point on about the middle of their posterior lateral margins, two distinct central carinæ at junction of anterior and posterior lobes, the posterior lobe very coarsely granulate on its lateral areas; scutellum with faint indications of a narrow central carination; connexivum moderately and somewhat convexly angulated, the posterior angles of the segments moderately prominent.

Length 10 to $11\frac{1}{2}$; breadth between pronotal angles $3\frac{3}{4}$ millim.

Hab. Burma; Karennee (*Fea*).—Also recorded from Sumatra.

Genus CARCINOCORIS.

Carcinocoris, *Handl. Ann. Hofmus. Wien*, xii, p. 219 (1897).

Type, *C. castetsi*, Handl.

Distribution. Oriental and Papuan Regions.

Head long, spinous, postocular area much longer than anteocular; scutellum long, sometimes nearly as long as the abdomen, its margins and a central carination more or less spinous; abdomen more or less dilated, longer than broad, but never twice as long as broad; margins of pronotum and abdomen largely spinose; legs spinose, intermediate and posterior legs more strongly so.

A. *Scutellum with the lateral margins parallel, not narrowed at apex.*

a. *Abdomen dilated, its margin angulate.*

925. **Carcinocoris hampsoni**, *Dist. A. M. N. H.* (7) ix, p. 357 (1902).

Fig. 111.
Carcinocoris hampsoni.

Somewhat intermediate between *C. castetsi*, Handl., and *C. erinaceus*, Handl. Scutellum long and slender, as in *C. erinaceus*, but with the lateral margins straight, not sinuate; abdominal margins expanded and angulate, as in *C. castetsi*, Handl., but all the marginal spines, both to it and the pronotum, much less robust.

Ochraceous; apex of corium, membrane, and a transverse central fascia to abdominal dilatations umber-brown; scutellum almost reaching apex of abdomen, its lateral margins longly spinous, but much less so on basal area.

Length $8\frac{1}{2}$; breadth 5 millim.

Hab. Nilgiri Hills (*Hampson*); Ootacamund (*Atkinson Coll.*, *Brit. Mus.*).

b. *Abdomen dilated, its margins rounded, not angulate.*

926. **Carcinocoris binghami**, *Sharp* (Carcinochelis), *Ent. Month. Mag.* xxxiii, p. 35 (1897); *id. Cambr. Nat. Hist.* vi, p. 554, f. 267 (1899); *Dist. A. M. N. H.* (7) ix, p. 357 (1902).

Allied to *C. erinaceus*, Handl., but with the scutellum a little shorter, its margins nearly straight, not sinuate, apex not narrowed, but broadly rounded; margins of abdomen convex, not angulate; other characters much as in *C. erinaceus*.

Length $6\frac{1}{2}$ millim.

Hab. Burma; Pegu Hills (*Bingham*).

This and *C. erinaceus* were placed by Handlirsch as one species; but Sharp subsequently figured his *C. binghami*, and left no room for misunderstanding.

B. *Scutellum with lateral margins sinuate, apex much narrowed; abdomen only moderately angulate.*

927. **Carcinocoris erinaceus**, *Handl. Verh. z.-b. Ges. Wien*, xlvii, p. 26 (1897); *Dist. A. M. N. H.* (7) ix, p. 357 (1902).
Carcinocoris binghami, pt., *Handl. Ann. Hofmus. Wien*, xii, p. 221, t. vi, f. 2, t. ix, ff. 61, 62 (1897).

Pale ochraceous; scutellum narrow, not reaching abdominal apex, sinuately narrowed from a little beyond base to about middle, with a central longitudinal ridge, which, with the lateral margins, is somewhat longly spinous; head, antennæ (excluding apical joint), and anterior lobe of pronotum with long erect spines, posterior pronotal lobe coarsely granulate, with two central diverging carinations, the margins and lateral angles longly spinous; margins of abdomen longly spinous; legs more or less longly spinous.

Length 6 to 7; breadth between pronotal angles 3 millim.

Hab. Burma; Karennee (*Fea*).

C. *Scutellum with lateral margins nearly straight, moderately narrowed at apex; abdomen strongly dilated, angulate and sinuate.*

928. **Carcinocoris castetsi**, *Handl. Verh. z.-b. Ges. Wien*, xlvii, p. 26 (1897); *id. Ann. Hofmus. Wien*, xii, p. 220, t. vi, f. 1, t. ix, ff. 59, 60 (1897).

This species may be recognized by its dilated and obtusely angulate abdomen, which has its margins strongly spined and sinuately narrowed beyond the broad central maximum angulation, where it is broadly fuscous, it also possesses two more smaller transverse fuscous spots near apex; the scutellum has the lateral margins nearly parallel, but distinctly narrowed at apex, which is somewhat truncate, its base fuscous; head, pronotum, and antennæ spined, as usual in the genus, but with the two transverse carinations to the posterior pronotal lobe also somewhat closely spinous.

Length 7 to 8 millim.

Hab. Palni Hills; Trichinopoly (*fide Handlirsch*).

Family ARADIDÆ.

The insects belonging to this family are flat and broad, of dull sombre coloration; the anterior legs are inserted on the disk of the prosternum; ocelli none; antennæ four-jointed; hemelytra possessing both corium and membrane; tarsi with two joints.

The Aradidæ are found under and in decaying bark and on fungi attached to the same, their peculiar structure being adapted to that mode of life. In colour they are all of sombre hue, mostly black or of some ferruginous tint. We may still expect many species to be discovered in British India, though Sign. Fea has added much to our knowledge by the collections he made in Burma, collections which have already been worked out by Dr. Bergroth. The types of these species have, by the kindness of Dr. Gestro of the Genoa Museum, passed through my hands, and many of them are here figured. These insects undoubtedly assist in the disintegration of trees and shrubs, though it is probable that they make no attack before some amount of decay has set in.

The Aradidæ have been divided into two subfamilies.

Synopsis of Subfamilies.

A. Sternum distinctly sulcated; rostrum reaching or passing base of prosternum . *Aradinæ.*
B. Sternum seldom sulcated; rostrum short, rarely passing base of head .... *Brachyrhynchinæ.*

Subfamily I. ARADINÆ.

This subfamily has been hitherto restricted to the genus *Aradus*, but I have also included in it the genus *Eumenotes*, which possesses both a long rostrum and sulcated sternum. If *Eumenotes* is not placed in the Aradinæ, it should form the type of a new subfamily; Bergroth, who redescribed it under the synonym *Odonia*, placed it in the Brachyrhynchinæ, but he apparently overlooked the sulcated sternum, which is not mentioned in his diagnosis.

Synopsis of Genera.

A. Head as long as broad, or longer, with the apical process tumescent, not bilobate .... ARADUS, p. 153.
B. Head considerably broader than long, anteriorly bilobate .... EUMENOTES, p. 155.

Genus ARADUS.

Aradus, pt., *Fabr. Syst. Rhyng.* p. 116 (1803); *Fieber, Eur. Hem.* pp. 34 & 110 (1861); *Stål, En. Hem.* iii, p. 135 (1873).
Piestosoma, *Lap. Ess. Hém.* p. 53 (1832).
Subg. Quilnus, *Stål, En. Hem.* iii, p. 137 (1873).

Type, *A. versicolor*, Herr.-Schäff., a Palæarctic species.

Distribution. Universally distributed.

Head with the apical process tumescent; antennæ with the first joint short, incrassate, its base finely stylated; sternum distinctly sulcated; rostrum reaching or passing the base of the prosternum.

929. **Aradus abnormis**, *Bergr. Ann. Mus. Civ. Gen.* xxvii, p. 730, pl. xii, ff. 1, 2 (1889).

Fig. 112.
Aradus abnormis.

Male elongate, parallel, *female* elongately oval; black, opaque; pronotum six-carinate.

Male; genital segment with long lobes extending considerably beyond the apex of the abdomen, as shown in figure.

Head longer than broad, spines at antenniferous tubercles long and prominent; antennæ black, with the second joint about four times as long as the first, third joint gradually thickened from base to apex; rostrum extending beyond the base of the prosternum; pronotum with anterior margin a little broader than base of head with eyes, lateral margins crenulate, disk with six carinæ, parallel, the outermost shortest; scutellum elongate, subtriangular, lateral margins elevated; anterior disk granulate, posterior area transversely rugulose; hemelytra a little shorter than the abdomen, at base a little laterally ampliated; legs dark fuscous, tibiæ medially much paler.

Length, ♂ $5\frac{1}{2}$, ♀ $6\frac{1}{2}$ millim.

Hab. Tenasserim; Thagata (*Fea*).

930. **Aradus candidatus**, *Bergr. Ann. Mus. Civ. Gen.* xxvii. p. 732, pl. xii, f. 3 (1889).

Oblong-ovate, opaque, dark fuscous; antennæ, hemelytra, and posterior angles of the segments to connexivum much paler; pronotum six-carinate.

Head longer than broad, spines at antenniferous tubercles long, not toothed; antennæ with the basal joint black, remaining joints pale brownish-ochraceous; pronotum with the lateral margins entire, not crenulate, distinctly concavely sinuate, the base before scutellum moderately concavely sinuate, disk with six carinations, the two central with their apices moderately incrassated, the next on each side of these with their apices hooked or curved, outermost shortest; scutellum triangular, laterally elevated, near base obtusely centrally elevated; hemelytra a little shorter than abdomen; membrane silvery white.

Length, ♂ $4\frac{1}{2}$ to 5, ♀ $4\frac{1}{2}$ millim.

Hab. Tenasserim; Thagata, Plapoo (*Fea*).

931. **Aradus mirabilis**, *Bergr. Ann. Mus. Civ. Gen.* xxxii, p. 710 (1892).

Fig. 113.
Aradus mirabilis.

♀. Ovate, piceous; third joint of antennæ (excluding base), base of rostrum, anterior margin and spines of pronotum, apices of lateral marginal spines, apical area of the scutellum, basal area and transverse veins to corium, subcallous inner marginal area to connexivum, obscure granulations to outer area of connexivum, anterior margin of prosternum, and lateral abdominal margins more or less pale ochraceous; legs fuscous, tibiæ annulated with luteous near base and at apex; lateral margins of the pronotum strongly produced and outwardly spinous; lateral margins of abdomen very strongly angulately produced.

Length, ♀, 9¼ millim.

Hab. Burma; Karennee (*Fea*).

I have followed Bergroth in placing this species in the genus *Aradus*, though it can scarcely be considered congeneric.

Genus **EUMENOTES**.

Eumenotes, *Westw. T. E. Soc.* iv, p. 246 (1847); *Voll. Faun. Ind. Néerl.* iii, p. 49 (1868).
Odonia, *Bergr. Ann. Mus. Civ. Gen.* xxvii, p. 733 (1889).

Type, *E. obscura*, Westw.

Distribution. Oriental Region.

Oblong, subovate, beneath moderately convex; head transverse, much broader than long, with eyes slightly narrower than the anterior margin of the pronotum, anteriorly bilobate, armed with a strong porrect spine in front of eyes; rostrum long, reaching the intermediate coxæ; pronotum subquadrate, posteriorly broadest, in separate lobes not divided; scutellum elongate, before middle slightly constricted; hemelytra complete; corium and membrane well defined; abdomen broader than hemelytra; legs normal, coxæ well separated; sternum profoundly sulcate.

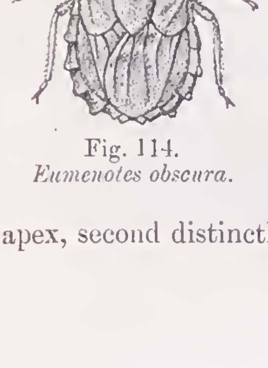

Fig. 114.
Eumenotes obscura.

932. **Eumenotes obscura**, *Westw. Tr. Ent. Soc.* iv, p. 247, pl. xviii, f. 4 (1847); *Voll. Faun. Ind. Néerl.* iii, p. 49 (1868).
Aradus truncatus, *Walk. Cat. Het.* vii, p. 39 (1873); *Bergr.* (Odonia) *Ann. Mus. Civ. Gen.* xxvii, p. 733, pl. xii, f. 4 (1889).

Fuscous; antennæ compressed, somewhat erectly setulose, first joint slightly passing apex, second distinctly longer than third, third and fourth joints

almost subequal; pronotum with the lateral margins medially impressed, discal surface irregular, some nodules on anterior area and a small nodule at each lateral angle; apex of corium rounded; legs somewhat erectly setulose.

Length $9\frac{1}{2}$ millim.

Hab. Sikhim; Mungphu (*Atkinson*). Burma; Karennee (*Fea*). —Described from Penang; also found in Borneo and other islands of the Malayan Archipelago.

Subfamily II. BRACHYRHYNCHINÆ.

The short rostrum is the principal characteristic of this subfamily, which includes by far the largest number of the genera and species of Aradidæ. In the species of some genera a sulcation of the sternum is found, but this is not combined with a long rostrum, and the divisional character is maintained.

Stål has divided the subfamily into two divisions, but as only one is found in this fauna, they need not be considered here.

Synopsis of Genera.

A. Scutellum more or less triangular; fourth joint of antennæ not, or very rarely, longer than the third, generally shorter.
- a. Abdomen convex beneath.
  - *a*. Base of pronotum truncate, not sinuate .... CARVENTUS, p. 156.
  - *b*. Base of pronotum sinuate before base of scutellum, or with its lateral angles lobate or sublobate.
    - *a'*. Veins of membrane distinct, or at least discernible.
      - *a²*. Head narrowed behind eyes, but there neither laterally tumid nor spinous .... ARTABANUS, p. 157.
      - *b²*. Head spinous or dentiform on each side behind eyes ...... BRACHYRHYNCHUS, p. 159.
    - *b'*. Veins of membrane indiscernible. PICTINUS, p. 163.
- b. Abdomen depressed and flattened beneath .... NEUROCTENUS, p. 164.

B. Scutellum broadly posteriorly rounded; fourth joint of antennæ longer than third; abdomen depressed and flattened beneath .... ANEURUS, p. 166.

Genus CARVENTUS.

Carventus, *Stål, Hem. Afr.* iii, p. 32 (1865); *id. En. Hem.* iii, p. 139 (1873).

Acorium, *Sign. Ann. Mus. Civ. Gen.* xv, p. 540 (1880).

Type, *C. denticollis*, Stål, from the Papuan Region.

Distribution. Oriental, Papuan, and Neotropical Regions.

Pronotum either moderately or not dilated, broadest posteriorly, the lateral margins medially more or less prominently dentated; first joint of the antennæ incrassate, passing the anterior process of head, longer than the second; hemelytra with corium and membrane almost indefinable; lateral margins of abdomen not prominently dilated, but with the segmental angles prominent; pronotum with a distinct anterior collar, the anterior portion of lateral margins somewhat truncately lobately produced, posterior margin truncate.

933. **Carventus gestroi**, *Bergr. Ann. Mus. Civ. Gen.* xxxii, p. 712 (1892).

Head, antennæ, pronotum, scutellum, body beneath, and legs fuscous; pronotal lateral margins somewhat obscurely ochraceous; hemelytra and connexivum dull pale ochraceous; hemelytra,

Fig. 115.—*Carventus gestroi.*

excluding basal area, and segmental margins to connexivum tinged with obscure pale castaneous; lateral margins of abdomen beneath narrowly coloured as connexivum above; legs fuscous, extreme apices of femora and the tibiæ a little paler.

Length $5\frac{1}{3}$ millim.

Hab. Burma; Karennee (*Fea*).

Genus ARTABANUS.

Artabanus, *Stål, Hem. Afr.* iii, p. 31 (1815); *id. Öfv. Vet.-Ak. Förh.* 1870, p. 672; *id. En. Hem.* iii, p. 139 (1873).

Type, *A. geniculatus*, Stål, from the Philippines.

Distribution. Oriental and Papuan Regions.

Pronotum at base on each side before scutellum a little sinuate, or before basal angles of scutellum a little lobate, lateral margins straight or medially unisinuate; scutellum with a longitudinal rugosity; hemelytra with the corium and membrane well defined, membranal veins distinct; antennæ with the first joint considerably shorter than the third; head narrowed behind eyes, and there neither laterally tumid nor spinose.

A. *Apex of anterior process of head moderately incised; corium considerably longer than scutellum.*

934. **Artabanus breviscutum,** *Bergr. Ann. Mus. Civ. Gen.* xxvii, p. 735, pl. xii, f. 6 (1889).

Fig. 116.
Artabanus breviscutum.

Fuscous-brown; head unarmed, the antenniferous tubercles obtusely angulately prominent, but not spinous; anterior process of head with its apex moderately incised; antennæ short, greyish pilose, first joint strongly incrassate, the second shorter and much less incrassate, apical joint moderately clavate; pronotum granulate; scutellum short, triangular, medially obtusely elevated; hemelytra shorter than abdomen, corium considerably longer than scutellum, its apical margin straight; membrane fuscous, its basal marginal area much paler; legs greyishly setulose; femora granulate.

Length, ♀, 6½ millim.
Hab. Tenasserim; Plapoo (*Fea*).

935. **Artabanus setulosus,** *Bergr. Ann. Mus. Civ. Gen.* xxxii, p. 713 (1892).

♀. Oblong, ovate, shortly setulose, piceous; head much longer than broad, the apical process not reaching middle of first antennal joint, apex moderately incised; antennæ granulate, setulose, second joint only about half the length of first; pronotum granulate, anteriorly prominently narrowed, apex concavely sinuate, anterior lobe quadrituberculate, posterior lobe a little longer than anterior lobe; hemelytra reaching the base of the apical abdominal segments; corium very much longer than the scutellum, its apical margin medially rounded; membrane fuscous; abdomen much broader than the hemelytra; femora granulate.

Length, ♀, 9½ millim.
Hab. Burma; Karennee (*Fea*).

936. **Artabanus sexspinosus,** *Bergr. Ann. Mus. Civ. Gen.* xxxii, p. 714 (1892).

♂. Elongate, or (♀) elongately ovate, shortly pilose, piceous; head a little longer than broad, apex of anterior process not or scarcely incised; antennæ as in *A. setulosus*, but a little thicker and shorter: pronotum sparingly granulate, narrowed anteriorly, lobes subequal in length, anterior lobe medially strongly sulcated, on each lateral area obtusely tuberculate, lateral margins concavely unisinuate, with a porrect tubercle on the margins of both lobes; scutellum medially carinate; hemelytra passing the base of ultimate abdominal segment; corium very little longer than scutellum, its

apical margin straight; femora armed with a long spine before apex.

Length $8\frac{1}{2}$ millim.

Hab. Burma; Palon, Karennee (*Fea*).

B. *Apex of anterior process of head bifurcate; corium not much longer than scutellum.*

937. **Artabanus excelsus**, *Bergr. Ann. Mus. Civ. Gen.* xxxii, pp. 713, 806 (1892); *id. Ent. Tidskr.* xv, p. 102 (1894).

♀. Oblong, ovate, shortly pilose, piceous; membrane black; head distinctly longer than broad, apex of anterior process distinctly bifurcate; antennæ with the second joint a little shorter than the first, third about twice the length of the second; pronotum a little broader posteriorly than anteriorly, anterior lobe with a transverse series of four prominent tubercles, lateral margins strongly medially sinuate, the lateral angles rounded; scutellum medially carinate; hemelytra reaching the base of the apical abdominal segment; legs shortly pilose, femora finely granulate.

Length $9\frac{1}{2}$ to 10 millim.

Hab. Burma; Karennee (*Fea*).—Also recorded from the island of Engano.

938. **Artabanus bilobiceps**, *Leth.* (Brachyrhynchus) *Ann. Mus. Civ. Gen.* xxvi, p. 464 (1888).

Artabanus atkinsoni, *Bergr. Ann. Mus. Civ. Gen.* xxvii, p. 734, pl. xii, f. 5 (1889).

Elongate, fuscous or ferruginous, tibiæ and tarsi paler; second, fourth, fifth, and sixth segments of connexivum with a large ochraceous spot; membrane piceous, its basal area luteous; head, pronotum, veins to corium and the femora granulate; head with the apex of the anterior process furcate; antennæ with the first joint much longer than the second, third about three times longer than second; pronotum distinctly transversely impressed, anterior area quadrituberculate, lateral margins profoundly unisinuate, lateral angles rounded.

Length, ♂ $6\frac{1}{2}$, ♀ 7 millim.

Hab. Tenasserim; Thagata (*Fea*).—Sumatra (*fide Lethierry*).

Genus BRACHYRHYNCHUS.

Brachyrhynchus, *Lap. Ess. Hem.* p. 54 (1832); *Amy. & Serv. Hem.* p. 304 (1843); *Stål, Hem. Afr.* iii, p. 32 (1865); *id. En. Hem.* iii, p. 140 (1873).

Mezira, *Amy. & Serv. Hem.* p. 305 (1843); *Bergr. Wien. ent. Zeit.* iv, p. 181 (1885).

Dusius, *Bergr. Ent. Tidskr.* xv, p. 104 (1894).

Subg. Arictus, *Stål, Hem. Afr.* iii, p. 31 (1865); *En. Hem.* iii, p. 144 (1873).

Type, *B. membranaceus*, Fabr.

Distribution. Universally distributed.

Body narrowly ovate or oblong; head behind eyes narrowly compressed and armed on each side with a very prominent tooth or spine, anterior process long, antenniferous tubercles prominently spinous; rostrum short; antennæ short, first joint scarcely passing apex of head, second joint almost subequal in length; pronotum transverse, near middle transversely impressed, lateral margins more or less sinuate, posterior margin more or less sinuate before scutellum; scutellum triangular; hemelytra with the corium much longer than the scutellum; membrane with numerous veins which more or less anastomose.

A. *Pronotum profoundly sinuate before base of scutellum.*

939. **Brachyrhynchus feanus,** *Bergr. Ann. Mus. Civ. Gen.* xxvii, p. 737, pl. xii, f. 8 (1889).

Dark, sometimes pale fuscous; membrane, body beneath and femora black; apex of fourth joint of antennæ ochraceous; head broad, broader than long, apex of anterior process emarginate, postocular dentate processes obtuse, extending far beyond eyes; rostrum passing base of head and almost reaching anterior coxæ; pronotum profoundly sinuated at posterior margin before the base of scutellum, anterior area with four unequal and irregular callosities; scutellum with the apex obtuse; hemelytra not extending beyond the penultimate abdominal segment, apical margin of corium straight; abdomen much broader than hemelytra.

Fig. 117.—*Brachyrhynchus feanus.*

Length, ♂ 10, ♀ $11\frac{1}{2}$ millim.

Hab. Sikhim; Mungphu (*Atkinson*). Burma; Kakhyen Kauri, near Bhamo (*Fea*).

940. **Brachyrhynchus membranaceus,** *Fabr.* (Aradus) *Syst. Rhyng.* p. 118 (1803); *Stål, Hem. Fabr.* i, p. 96 (1868).
Var. albipennis, *Fabr. Syst. Rhyng.* p. 118 (1803).
Var. orientalis, *Lap. Ess. Hém.* p. 54 (1832).
Crimia nigra, *Dohrn, Stett. ent. Zeit.* xxi, p. 406 (1860).
Aradus lugubris, *Boisd. Voy. 'Astrolabe,' Ent.* ii. p. 642, pl. xi, f. 24 (1835).
Var. nasutus, *Stål, Öfv. Vet.-Ak. Förh.* 1870, p. 673.

Piceous or dark fuscous-brown; head with the apex of the anterior process moderately emarginate; antennæ very robust, granulate, first, second, and third joints almost subequal in length, fourth joint shortest, conical, its apex ochraceous; pronotum with four large irregular tubercles on the anterior area, posterior area sparingly granulate, lateral margins sinuate at transverse impression, posterior margin profoundly sinuate before base of scutellum; scutellum triangular, granulate, with a somewhat obscure central

longitudinal rugosity; corium considerably longer than scutellum, granulate, the veins and margins rugose; membrane reaching or just passing the base of the last abdominal segment; abdomen much wider than hemelytra; tarsi and rostrum dark castaneous.

Var. Membrane ochraceous, with its basal area piceous.

Length 9 to 12 millim.

Hab. Assam; Khási Hills (*Chennell*), Margherita (*Doherty*). Sikhim; Mungphu (*Atkinson*). Ceylon (*Green*). Burma; Palon, Karennee (*Fea*). Tenasserim; Meetan, Mt. Mooleyit (*Fea*).—Found throughout the Malay Peninsula and Malayan Archipelago.

941. **Brachyrhynchus triangulus**, *Bergr. Ann. Mus. Civ. Gen.* xxvii, p. 736, pl. xii, f. 7 (1889); *id. Ent. Tidskr.* xv, p. 107 (1894).
Brachyrhynchus membranaceus, var. triangularis, *Leth. & Sev. Cat. Gén. Hém.* iii, p. 43 (1896).

Closely allied to the preceding species, *B. membranaceus*, but differing principally by the lateral margins of the sixth abdominal segment being sinuate, somewhat rectangularly excavate; the pronotum is also relatively narrower than in *B. membranaceus*.

Length, ♂, 10 millim.

Hab. Burma; Teinzo (*Fea*). Ceylon; Kurunegalla (*Green*). Perak (*Coll. Dist.*).

Dr. Bergroth informs me that although the males are easily distinguished from *B. membranaceus*, the females are only to be separated by a difference of genital segments.

B. *Pronotum only moderately sinuate before base of scutellum.*

a. *Anterior angles of pronotum not lobately produced.*

942. **Brachyrhynchus lateralis**, *Walk.* (Crimia) *Cat. Het.* vii, p. 14 (1893); *Dist.* (Neuroctenus) *A. M. N. H.* (7) ix, p. 360 (1902).
Brachyrhynchus montanus, *Bergr. Ann. Mus. Civ. Gen.* xxvii, p. 738 (1889).

Piceous, tinged with obscure brownish-ochraceous, which is most prominent at base of head, the callosities and lateral angles of pronotum, and the basal tubercles of scutellum; apex of fourth joint of antennæ, interior margin of membrane, posterior margins of segments to connexivum, and bases of tibiæ ochraceous; apex of anterior process to head emarginate, postocular dentate processes not passing eyes; anterior area of pronotum with four callosities; scutellum transversely strigose, with a central longitudinal rugose striation, and with a short elongate rugose tuberculous striation near each basal angle; hemelytra not reaching the genital segment; corium much longer than scutellum, its apical margin profoundly sinuated; abdomen much broader than hemelytra; femora strongly granulate.

Length 6 to 8½ millim.

Hab. Ceylon (*Templeton*). Burma; Karennee (*Fea*). Tenasserim Mt. Mooleyit (*Fea*).

b. *Anterior angles of pronotum lobately produced.*

943. **Brachyrhynchus tagalicus**, *Stål* (Arictus), *Öfv. Vet.-Ak. Förh.* 1870, p. 672; *Bergr. Verh. z.-b. Ges. Wien*, xxxvi, p. 59, pl. ii, ff. 5 & 7 (1886).

Brownish-fuscous; antennæ with the second and fourth joints smallest and subequal in length, third longest; fourth stoutest; pronotum with the lateral margins strongly sinuate at transverse impression, coarsely shortly setose, the lateral marginal area of the anterior lobe somewhat lobately produced and rounded, anterior lobe obscurely tuberculous, posterior lobe sparingly coarsely granulate, posterior margin moderately sinuate before base of scutellum; hemelytra much narrowed posteriorly, lobately produced at basal margin; corium considerably longer than scutellum, with a curved transverse vein near apex of scutellum, its apical area somewhat ochraceous; membrane not quite reaching sixth abdominal segment, its veins very distinct and piceous; abdomen very much broader than hemelytra, its lateral areas rugose and exeavate.

Length $8\frac{1}{2}$ to 9 millim.

Hab. Burma; Palon, Teinzo, Katha (*Fea*).—Philippines; Java; Nias Island.

944. **Brachyrhynchus tenericornis**, *Bergr. Ann. Mus. Civ. Gen.* xxxii, p. 715 (1892).

Ovate, brownish-fuscous, the abdominal incisures flavous; head long, the apex of the anterior process broadened and incised; antennal spines diverging, postocular proeesses suberect, just passing the eyes; antennæ with the basal joint reaching the apex of the head, second and third subequal, fourth short, fusiform; pronotum laterally near middle very strongly incised, anterior lobe shorter than posterior, anterior angle lobately and obliquely produced, the disk with four callosities, of which the central two are rounded and much the largest, posterior lobe with its basal margin moderately concavely sinuate before base of scutellum; scutellum centrally carinate and with a shorter carination near each basal angle; corium much longer than scutellum, membrane not reaching apex of abdomen; pale piceous, veins darker.

Length, ♂ and ♀, 9 millim.

Hab. Burma; Karennce (*Fea*).

945. **Brachyrhynchus undulatus**, *Bergr. Ann. Soc. Ent. Belg.* xxxvi, p. 504 (1892).

Oblong, ovate, piceous-brown; head a little longer than broad, anterior process slightly passing the middle of the first antennal joint, antenniferous spines acute; pronotum about twice as broad as long, basal margin nearly straight, lateral margins crenulate, sinuate before middle, apical angles porrectly and lobately produced,

medially transversely impressed, anterior lobe with four callosities, the two external very obsolete; hemelytra almost reaching the genital segment; corium much longer than the scutellum and about reaching the apex of the second segment of connexivum, apical angle rounded, apical margin near middle subangulate; membrane reticulate; margins of abdomen moderately undulate or angulate at incisures; legs erectly pilose; antennæ with the first joint erectly pilose, remaining joints mutilated in type.

Length $8\frac{1}{2}$ millim.

Hab. Sikhim; Kurseong (*Brussels Mus.*).

I am indebted to Mon. Severin for an opportunity of describing and comparing Bergroth's typical specimen.

Genus **PICTINUS.**

Pictinus, *Stål, En. Hem.* iii, pp. 140 & 145 (1873).

Type, *P. cinctipes*, Stål, a Neotropical species.

Distribution. Nearctic, Neotropical, Oriental, and Papuan Regions.

This genus can at once be distinguished by the obliterated or indiscernible veins to the membrane, and by the somewhat convexly truncate posterior margin of the pronotum.

946. **Pictinus asiaticus**, *Bergr. Ann. Mus. Civ. Gen.* xxxii, p. 716 (1892).

Fig. 118.
Pictinus asiaticus.

Castaneous; membrane pale hyaline; antennæ robust, first joint incrassate, longer than second, third considerably longer than second, fourth fusiform; pronotum distinctly transversely impressed, anterior lobe shorter than posterior, posterior lobe medially impressed, lateral margins distinctly, broadly reflexed; scutellum broader than long, coarsely punctate, centrally carinate; hemelytra a little shorter than abdomen; corium a little longer than scutellum, its apical margin straight; abdomen a little broader than hemelytra, its lateral margins strongly upwardly reflexed.

Length $3\frac{1}{2}$ millim.

Hab. Burma; Karennee (*Fea*).

947. **Pictinus verrucicollis**, *Walk.* (Crimia) *Cat. Het.* vii, p. 13 (1873); *Dist. A. M. N. H.* (7) ix, p. 360 (1902).

Ferruginous-brown, finely granular; anterior angles and lateral margins of pronotum, large spots to the connexivum above and beneath, apices of femora, the tibiæ and tarsi ochraceous; antennæ with the apices of second and fourth joints ochraceous, first joint

very slightly longer than second, fourth fusiform and setose; anterior process of head with its apex slightly emarginate and about reaching end of first antennal joint, spines in front of eyes prominent and oblique; pronotum with the anterior lobe strongly concavely sinuate at lateral margins, and armed on disk with two prominent tubercles, the anterior angles of both lobes obtusely spinous, posterior lobe with an obscure transverse broken waved rugose line; scutellum with a central rugose carination; apical margin of corium strongly sinuate; membrane paler and reaching base of apical abdominal segment.

Length $6\frac{1}{2}$ millim.

Hab. Ceylon (*Brit. Mus.*).

Genus NEUROCTENUS.

Neuroctenus, *Fieber, Eur. Hem.* p. 34 (1861); *Stål, En. Hem.* iii, p. 140 (1873).
Mezira, part., *Stål, Hem. Afr.* iii, pp. 31 & 35 (1865).
Synopsis generis, *Bergr. Öfv. Finska Vet. Soc. Förh.* xxix, p. 173 (1887).

Type, *N. caffer*, Stål, an Ethiopian species.

Distribution. Nearctic, Neotropical, Ethiopian, Oriental, and Australasian Regions.

This and the following genus (*Aneurus*) may be distinguished from all the preceding genera by the flattened body, principally caused by the greatly depressed abdomen beneath; the scutellum is triangular; the fourth joint of the antennæ is rarely longer than the third.

948. **Neuroctenus par**, *Bergr. Öfv. Finska Vet. Soc. Förh.* xxix, p. 180 (1887).
Crimia rubrescens, part., *Walk. Cat. Het.* vii, p. 14 (1873).

Elongately ovate, slightly granulate, opaque, piceous; abdomen and legs brownish-piceous; disk of abdomen beneath flavescent; antennæ with the first and second joints subequal in length, third slightly longer than second, fourth subequal to or a little shorter than second, postocular dentiform process passing eyes; pronotum medially impressed; anterior lateral angles rounded; corium with the apical margin bisinuate; membrane with a metallic lustre, base and internal angle luteous.

Fig. 119.
Neuroctenus par.

Var. As here figured; disk of anterior process to head, antennæ, anterior and lateral margins to pronotum, upper surface of abdomen and legs testaceous.

Length 6 to 8 millim.

Hab. Burma; Bhamo, Teinzo, Karennee (*Fea*). Tenasserim; Thagata, Plapoo (*Fea*), Victoria Point (*Atkinson*).—Originally described from Java; Siam (*Brit. Mus.*).

949. **Neuroctenus affinis**, sp. n.

Allied to *N. par*, Bergr., but smaller, anterior process of head about reaching apex of basal joint of antennæ, of which the first and second joints are subequal, third longer than second, fourth about subequal to second; postocular dentiform process not passing eyes; lateral margins of pronotum not rounded anteriorly.

Length 6 millim.

Hab. Dehra Dun (*Stebbing*).—Found in decaying Sal wood (*Shorea robusta*).

I have seen a very long series of this species, and it is constant both in size and structure.

950. **Neuroctenus serrulatus**, *Stål, Öfv. Vet.-Ak. Förh.* 1870, p. 674; *Bergr. Öfv. Finska Vet. Soc. Förh.* xxix, p. 179 (1887).
Crimia rubrescens, part., *Walk. Cat. Het.* vii, p. 14 (1873).

Brownish-testaceous; hemelytra with the corium pale stramineous, the membrane pale hyaline; head with the anterior process reaching or slightly passing the apex of the first joint of the antennæ, its anterior margin moderately incised; antennæ with the basal joint globose and about subequal to second, third slightly longer than second; pronotum with a distinct transverse impression, the anterior area obscurely excavately impressed, lateral margins of both lobes a little convexly rounded; membrane reaching the base of the sixth abdominal segment; femora coarsely granulose; lateral margins of pronotum and abdomen very finely serrulate.

Length $6\frac{1}{3}$ millim.

Hab. Ceylon (*Lewis*). Tenasserim; Victoria Point (*Atkinson*).—Also recorded from Java and the Philippines.

951. **Neuroctenus nitidulus**, *Bergr. Öfv. Finska Vet. Soc. Förh.* xxix, p. 177 (1887); *id. Ent. Tidskr.* xv, p. 113 (1894).

Elongate, a little dilated posteriorly, shining, piceous, abdomen beneath fulvous; antennæ with the second joint a little shorter than the third, fourth nearly twice as long as second; spines near bases of antennæ short, obtuse; postocular dentiform processes obtuse, minute, not passing eyes; anterior process to head equal in length to first joint of antennæ, its apex emarginate; pronotum unequal, laterally moderately sinuate, angles subcallous; scutellum rugose; corium longer than scutellum, its apical angle acute, subacuminate; membrane shining fuscous, its base narrowly and obsoletely luteous; femora denticulated beneath.

Length 6 millim.

Hab. Burma (*Stockholm Mus.*).

I have not seen this species.

NOTE.—*Neuroctenus rubrescens*, Walk. (*Crimia*) Cat. Het. vii, p. 14 (1873). A number of species were included by Walker under this name. The first on the list, from Hindostan, is not to be found; that from Ceylon =*serrulatus*, Stål, and does not agree with Walker's description. The third, from Siam, =*N. par*, Bergr. The specimens from Singapore, Sarawak, and Aru, I take to be typical *rubrescens*, Walk., agreeing with the description.

Genus ANEURUS.

Aneurus, *Curtis, Brit. Ent.* ii, p. 86 (1825); *Fieb. Eur. Hem.* pp. 35 & 116 (1861); *Stål, En. Hem.* iii. p. 140 (1873).

Type, *A. lævis*, Fabr., a Palæarctic species.

Distribution. Almost universally distributed.

Allied to *Neuroctenus* by the flattened, depressed body, but differing from it by the broadly rounded posterior margin of the scutellum and by the fourth joint of the antennæ being longer than the third.

952. **Aneurus indicus,** *Bergr. Ann. Mus. Civ. Gen.* xxxii, p. 717 (1892).

Fig. 120. *Aneurus indicus.*

Dark ferruginous or fuscous, disks of sternum and abdomen beneath paler; antennæ with the first joint incrassated, second and third subequal, fourth longer than third; pronotum with the anterior angles rounded, the lateral margins behind middle subdenticulately prominent (this is sometimes scarcely discernible, as in the specimen here figured); scutellum about as long as broad, with a central carination; corium with a medial somewhat oblique ochraceous fascia; anterior process to head, apex of fourth antennal joint, disk of anterior pronotal lobe, abdomen above, and legs more or less castaneous.

Length $3\frac{1}{2}$ to 4 millim.

Hab. Burma; Karennee (*Fea*).

Family HEBRIDÆ.

A family consisting of very small insects, in which the body beneath is clothed with a silvery velvety pubescence and the antennæ are five-jointed. Only three genera are at present known, and the number of recorded species is small; but this is perhaps more due to our want of knowledge, through imperfect collecting, than to a real paucity of the insects.

One genus only is at present known in British India.

Genus HEBRUS.

Hebrus, *Curtis, Ent. Mag.* i. p. 198 (1833); *Amy. & Serv. Hém.* p. 294 (1843); *Fieb. Eur. Hem.* pp. 32 & 104 (1861); *Champ. Biol. Centr.-Amer., Rhynch.* ii, p. 117 (1898).
Næogæus, *Lap. Ess. Hém.* p. 34 (1832).

Type, *H. pusillus*, Fall., a Palæarctic species.

Distribution. Probably widely and generally distributed. As stated by Champion, the Palæarctic type has five-jointed antennæ, but Laporte and some other authors give the antennæ as four-jointed, the divisions between the fourth and fifth joints being very obscure; other writers, as Douglas and Scott, enumerate six joints, a minute jointlet at the base of the third being regarded by them as a true joint. The ventral sutures are sometimes indistinct or obsolete; tarsi of two joints.

If a strict rule of priority were applied to this genus, it would be necessary to use Laporte's name; but *Hebrus* has been employed by all acknowledged authorities, and nothing could be gained, but much obscurity caused, by altering the name, a course which would also necessitate a fresh name for the family.

We now describe the first species known from British India.

953. **Hebrus orientalis**, sp. n.

Ferruginous-brown; corium dull stramineous, with its apical area piceous; membrane fuscous, with four discal obscure greyish spots; antennæ, legs, connexivum, and lateral margins of abdomen beneath ochraceous; apices of the femora pale castaneous; legs coarsely granulate; head finely sulcate between the eyes; first joint of antennæ about as long as head, longer but not twice as long as second; pronotum with the lateral angles subprominent, inwardly distinctly sulcately impressed; scutellum with the apex broadly, angularly incised; under surface imperfectly seen owing to specimens being carded.

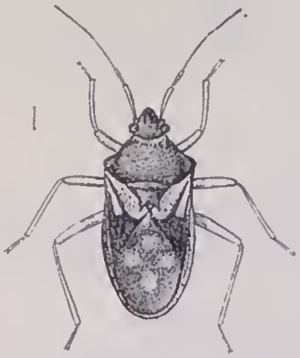

Fig. 121.
Hebrus orientalis.

Length $2\frac{1}{2}$ millim.

Hab. Burma; Karennee (*Fea*).

Family HYDROMETRIDÆ.

This family may be distinguished from the Hebridæ by the four-jointed antennæ, while, as in that family, the abdomen beneath is clothed with a silvery velvety pubescence. These insects are all aquatic or subaquatic. Some very distinct genera are included in the Hydrometridæ, which give to this group a heterogeneous appearance; but the family is still—as is shown particularly by the life and habits of the species—a natural one. It is divided into four subfamilies, all of which are represented in British India.

Champion (Biol. Centr.-Amer., Rhynch. ii, p. 123) has included *Mesovelia* in the Hebridæ, as had formerly Dr. Puton; but such a position for the genus is not generally accepted and is not followed here.

Synopsis of Subfamilies *.

A. Coxæ contiguous or nearly so; scutellum visible .... *Mesoveliinæ.*
B. Coxæ widely separated, scutellum covered.
  a. Head very elongate in front of eyes, many times longer than wide .... *Hydrometrinæ.*
  b. Head short, as wide across the eyes as long.
    a. Posterior femora not extending to the abdominal apex .... *Veliinæ.*
    b. Posterior femora long and slender, extending far beyond the abdominal apex .... *Gerrinæ.*

Subfamily I. MESOVELIINÆ.

This subfamily is represented by a single genus, and is somewhat generally distributed, but not yet recorded from the Ethiopian Region. According to Sahlberg, *Mesovelia* frequents the leaves of *Nymphæa*, *Potamogeton*, &c.

Genus **MESOVELIA**.

Mesovelia, *Muls. & Rey, Ann. Soc. Linn. Lyon*, 1852, p. 138; *Fieber, Eur. Hem.* pp. 33 & 105 (1861); *Sahlb. Not. Faun. Fl. Fenn.* xiv, p. 259 (1875); *Saund. Hem. Het. Brit. Islds.* p. 145 (1892).
Fieberia, *Jakowl. Hor. Soc. Ent. Ross.* vii, p. 32 (1873).

Type, *M. furcata*, Muls. & Rey, a Palæarctic species.

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* I have here very largely followed the synoptical characters so clearly given by E. Saunders (Hem. Het. Brit. Islds. p. 144, 1892).

Distribution. Recorded from the Palæarctic, Nearctic, Neotropical, and Oriental Regions, but probably still more widely distributed.

Elongate, hemelytra not always fully developed; head with the eyes large and almost touching anterior margin of pronotum, ocelli about equally distant from eyes as from each other, antenniferous tubercles well developed; antennæ four-jointed; rostrum reaching the intermediate coxæ; pronotum with the lateral angles somewhat tuberculously subprominent, its posterior margin a little sinuate; scutellum large, its apex somewhat broadly truncate; corium with very robust venation: clavus submembranous; legs long and slender, tarsi three-jointed.

954. **Mesovelia mulsanti**, *Buch. White, Tr. E. S.* 1879, p. 268; *Champ. Biol. Centr.-Am., Rhynch.* ii, p. 123, pl. viii, ff. 10 & 11 (1898).

Mesovelia bisignata, *Uhler, in Kingsley's Stand. Nat. Hist.* ii, p. 273, f. 324 (1884); *id. Proc. Zool. Soc.* 1893, p. 706.

Mesovelia orientalis, *Kirk. Ann. Mus. Civ. Gen.* xl, p. 808 (1900).

Stramineous or pale luteous; extreme apices of the antennal joints, posterior area of the pronotum, lateral margins of the scutellum, and veins to corium fuscous; corium exhibiting a pale discal cell at apical margin; membrane pale hyaline, with an opalescent tint; body beneath finely greyishly pubescent; apices of the tarsi piceous; the eyes are usually piceous, but in the type of Kirkaldy's Sumatran *orientalis* they are pale brownish; first, third and fourth joints of the antennæ subequal in length, second joint shortest; tibiæ longly hirsute, intermediate femora armed with fine spinules beneath.

Length $2\frac{1}{2}$ to 3 millim.

Hab. Ceylon; Peradeniya, Tangalla (*Green*). — Sumatra (*Beccari*); also found in North and Central America, and in the Antilles.

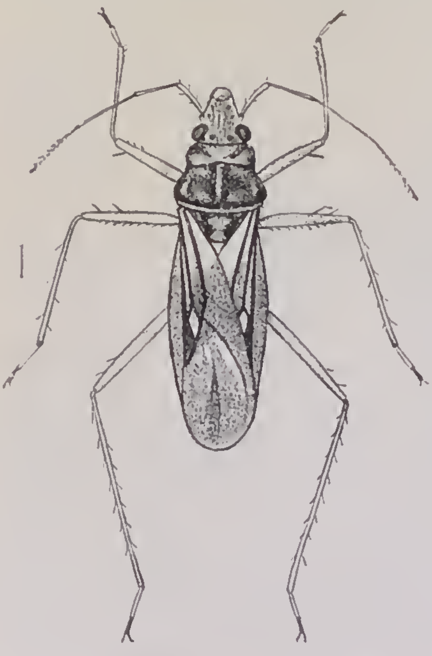

Fig. 122.—*Mesovelia mulsanti.*

I have been able to compare Kirkaldy's type and Green's Ceylon examples with the fine Neotropical series of specimens referred to in the 'Biol. Centr.-Amer.' and now contained in the British Museum.

Subfamily II. HYDROMETRINÆ.

A very distinct subfamily, containing one very widely distributed genus. Its extent and distribution are still most imperfectly known, as is evident by occasional descriptions of species from the most widely separated regions.

Genus **HYDROMETRA**.

Hydrometra, *Latr. Précis des caract. gén. des Ins.* p. 86 (1796); *Curt. Brit. Ent.* i, p. 32 (1824); *Stål, Hem. Afr.* iii, p. 166 (1865); *Saund. Hem. Het. Brit. Islds.* p. 147 (1892).
Limnobates, *Burm. Handb.* ii, p. 210 (1835); *Fieber, Eur. Hem.* p. 103 (1861).

Type, *H. stagnorum*, Linn., a Palæarctic species.
Distribution. Probably almost universal.

Very elongate and linear; head very long, much longer than pronotum, dilated anteriorly, eyes remote from anterior margin of pronotum, ocelli absent; antennæ slender, inserted near apex of head; rostrum a little shorter than head; pronotum long, more than twice as long as wide; scutellum scarcely visible; hemelytra shorter than the abdomen, sometimes undeveloped.

The insects are found on the surface of water in sheltered situations and are of sluggish habits.

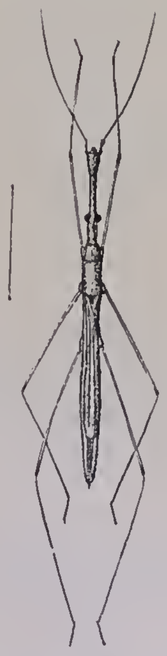

Fig. 123.
Hydrometra vittata.

955. **Hydrometra vittata**, *Stål, Öfv. Vet.-Ak. Förh.* 1870, p. 705; *Dist. A. M. N. H.* (7) xi, pp. 255-6 (1903).
Limnobates albolineatus, *Scott, A. M. N. H.* (4) xiv, p. 447 (1874).
Hydrometra greeni, *Kirk. Entomologist*, 1898, p. 2.

Ferruginous; hemelytra and apices of the femora piceous; a slender central line extending through the postocular portion of the head and pronotum, a line at the lateral margins of the anterior area of the pronotum, and body beneath much paler; a line to clavus, a central longitudinal fascia to hemelytra (sometimes practically obsolete) white; length of head from eyes to apex nearly two and a third times greater than from eyes to base; hemelytra reaching the base of the fifth abdominal segment.

Length 11 to 12 millim.

Hab. Bombay; Bor Ghát (*Dixon*). Ceylon (*Green*). Burma; Palon (*Fea*); Shan States, Taunggyi (*Thompson*). Tenasserim; Houngdarau Valley (*Fea*).—Malay Peninsula; Pahang (*Craddock*). Philippines. Japan (*Lewis*).

Subfamily III. VELIINÆ.

This subfamily is composed of insects having a somewhat common facies. They are aquatic in habits, and mostly frequent fresh water; but the genera *Halovelia*, Bergr., and *Trochopus*, Carp., are marine. The Veliinæ are almost universally distributed, but our knowledge of the genera and species is still incomplete.

Synopsis of Genera.

A. Anterior femora straight or nearly straight, not prominently curved in either sex.
  a. Body elongate; antennæ long, with third and fourth joints moderately slender.
    a. Intermediate and posterior tarsi equal or subequal in length .... RHAGOVELIA, p. 171.
    b. Intermediate tarsi longest .... VELIA, p. 172.
  b. Body short, subovate; antennæ moderately short and stout.
    a. Pronotum subangularly posteriorly produced .... MICROVELIA, p. 174.
    b. Pronotum convexly posteriorly produced .... PERITTOPUS, p. 175.
B. Anterior femora strongly curved in female; antennæ with third and fourth joints slender .... BAPTISTA, p. 173.

Genus RHAGOVELIA.

Rhagovelia, *Mayr, Verh. zool.-bot. Ges. Wien*, 1865, p. 445; *Champ. Biol. Centr.-Am., Rhynch.* ii, p. 131 (1898).
Bæcula, *Stål, Hem. Afr.* iii, p. 167 (1866).
Neovelia, *Buch. White, Journ. Linn. Soc., Zool.* xiv, p. 487 (1879).

Type, *R. nigricans*, Burm., from the Southern Palæarctic Region and Mascarene Islands.

Distribution. Probably found in all the principal zoo-geographical regions.

In the different diagnoses of this genus much confusion exists as to the estimation of the number of tarsal joints by different observers. As Champion remarks, the genus is well characterized by the three-jointed tarsi, and the long, deeply-fissured, terminal joint of the intermediate tarsi. The same writer observes :—"In this fissure there is a series of long ciliated hairs, arising from a common stem, which are probably extended, fan-like, when the insect moves about on the surface of the water; these hairs are sometimes partly extended in dried specimens, but they are usually hidden within the fissure."

The *Rhagoveliæ* are found on the surface of fresh water.

956. **Rhagovelia ravana**, *Kirk. Entomologist*, 1902, p. 64.

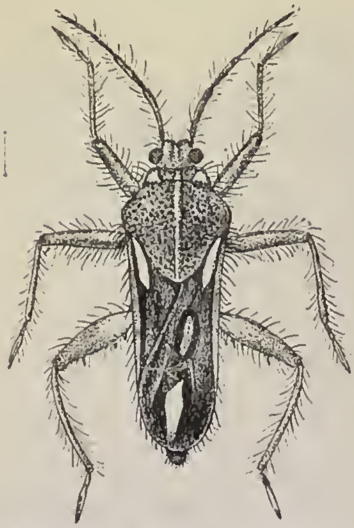
Fig. 124.—*Rhagovelia ravana.*

Brownish-black; head (more or less) and a central longitudinal line to pronotum ferruginous; antennæ unicolorous; a spot on each side of pronotum at anterior angles, and three spots to hemelytra, one at base, another in the central cell, and the third apical, silvery-white; veins very distinct; femora more or less pallid, especially at bases and under surface; coxæ and trochanters pallid; connexivum with a broad median longitudinal pale flavous fascia; abdomen beneath dark brownish, ochraceously pilose, and somewhat pallid medianly.

Length 4 to 4½ millim.

Hab. Ceylon; Peradeniya (*Green*).

By the favour of Mr. Kirkaldy I have been enabled to figure his type specimen.

Genus VELIA.

Velia, *Latr. Gen.* iii, p. 132 (1807); *Burm. Handb.* ii, p. 211 (1835); *Amy. & Serv. Hém.* p. 419 (1843); *Fieber, Eur. Hem.* pp. 33, 105 (1861); *Stål, Hem. Afr.* iii, p. 167 (1865); *Saund. Hem. Het. Brit. Islds.* p. 148 (1892).

Type, *V. currens*, Fabr.

Distribution. Nearctic, Neotropical, and Palæarctic Regions, just entering the Oriental.

Head short, eyes large and slightly separated from the anterior margin of the pronotum, ocelli absent; first joint of antennæ longest, curved, remaining joints subequal in length; rostrum extending to about the middle of the mesosternum; pronotum with the basal margin posteriorly convexly produced; hemelytra in the developed form entirely membranous, or in the undeveloped form entirely absent; connexivum reflexed, the apical segment produced in a dentate angulation; in the male two genital segments are visible above, in the female only one; intermediate femora long, slender, posterior femora incrassated, with two spines and a series of denticulations in the male; tarsi three-jointed, claws subapical, intermediate tarsi longest.

957. **Velia currens**, *Fabr.* (Gerris) *Ent. Syst.* iv, p. 193 (1794); *id.* (Hydrometra) *Syst. Rhyng.* p. 259 (1803); *Amy. & Serv. Hém.* p. 420 (1843); *Fieb. Eur. Hem.* p. 105 (1861); *Saund. Hem. Het. Brit. Islds.* p. 149 (1892).

♀. Dark chocolate-brown; abdomen above blackish-brown; connexivum brownish-ochraceous, spotted with black; antennæ, rostrum, legs and body beneath brownish-ochraceous, the last

with a broad piceous submarginal fascia; a spot on each side of anterior pronotal lobe, two spots on first, and sometimes a small spot on sixth abdominal segment dull silvery-white; pronotum with a distinct central longitudinal carination.

Fig. 125.—*Velia currens.*

Length 6 to 7 millim.

Hab. Murree (*Stoliczka*, *Ind. Mus.*).—Widely distributed throughout the Palæarctic Region.

This species was collected by Dr. Stoliczka during the Second Yarkand Expedition, but was not included in the collection forwarded to this country and which I worked out in 1879. The fully developed form is everywhere very rare. The immature insect is found commonly in streams, &c.

Genus **BAPTISTA**, nov.

Type, *B. gestroi*, Dist.

Distribution. Burma.

Head subtriangular with a distinct central longitudinal ridge, eyes prominent; antennæ with the first joint thickened, curved, almost as long as head, second joint less thickened, shorter, but more than half the length of first, third and fourth joints very slender, third longest, fourth much longer than first, all the joints very finely setose; pronotum with an obscure central carination, the lateral angles subprominent, anterior angles truncate behind eyes; anterior femora slightly curved in male, strongly curved in female, their apical areas thickened and obscurely toothed beneath near apices; body beneath imperfectly seen in carded specimens.

Fig. 126. *Baptista gestroi*, ♀.

958. **Baptista gestroi**, sp. n.

Piceous; hemelytra black, with two oblique linear spots at base, five or six discal spots on posterior half and a spot at apex creamy-white; first and second joints of antennæ and the legs ochraceous; apices of femora and bases of tibiæ a little infuscated; lateral margins of the pronotum somewhat laminate and acute; femora very finely and obscurely hirsute beneath, in the female these hairs are more prominent and tuft-like near apices of posterior femora; anterior femora much curved in female, very moderately so in male.

Length $3\frac{1}{2}$ to 4 millim.

Hab. Burma; Karennee (*Fea*).

Genus MICROVELIA.

Microvelia, *Westw. Ann. Soc. Ent. Fr.* iii, p. 647 (1834); *Amy. & Serv. Hém.* p. 421 (1843); *Saund. Hem. Het. Brit. Islds.* p. 150 (1892).
Hydroëssa, *Burm. Handb.* ii, p. 213 (1835); *Fieber, Eur. Hem.* pp. 33, 104 (1861); *Stål, Hem. Afr.* iii, p. 167 (1865).

Type, *M. pulchella*, an Antillean species.

Distribution. Very widely, probably universally, distributed.

Head triangular, eyes very large, near to, sometimes touching, anterior margin of pronotum, ocelli absent; antennæ with the basal joint incrassate, passing apex of head, second joint at apex about as thick as the first; rostrum reaching disk of mesosternum; pronotum with its basal margin angularly dilated and posteriorly produced; hemelytra submembranous, the veins thickened; connexivum reflexed; intermediate femora rather long, posterior femora slightly incrassate.

1

Fig. 127.
Microvelia repentina.

959. **Microvelia repentina**, sp. n.

Head, pronotum and body beneath piceous; anterior margin of pronotum, connexivum, antennæ and legs ochraceous; hemelytra creamy-white, reaching the apex of the abdomen, the veins dull ochraceous; first and second joints of antennæ subequal in length; pronotum with the lateral angles subprominent.

Length $1\frac{1}{2}$ millim.

Hab. Calcutta.

960. **Microvelia singalensis**, *Kirk. Entomologist*, xxxvi, p. 180 (1903).

Head and pronotum piceous, lateral margins of head and anterior margin of pronotum silvery-grey; hemelytra bluish-grey with piceous venation, thus giving the appearance of bluish-grey spots, its apical area piceous, with a distinct elongate apical bluish-grey spot; connexivum ochraceous, much upwardly reflexed; body beneath piceous with silvery-grey pubescence; legs and antennæ ochraceous; first and second joints of antennæ, apices of tibiæ, and the tarsi more or less infuscated; body distinctly narrowed posteriorly; pronotum with a distinct central longitudinal carination, its lateral angles obtusely subprominent; first and second joints of antennæ thickened, third and fourth slender and longest, fourth longer than third.

Length $1\frac{3}{4}$ millim.

Hab. Ceylon; Pundaluoya, Gampola (*Green*).

Mr. Green kindly sent to me specimens of this species which were caught in an acetylene moth-trap.

Genus PERITTOPUS.

Perittopus, *Fieber, Eur. Hem.* p. 33 (1861); *Kirk. Entomologist*, 1901, p. 286.

Type, *P. breddini*, Kirk., a Javan species.

Distribution. Oriental Region.

Apterous form. Subovate; rostrum and antennæ short and stout; pronotum with a narrow anterior collar; anterior tarsi apparently single-jointed (two minute basal nodes or joints); intermediate and posterior tarsi distinctly three-jointed; claws inserted posterior to the apex, in a single cleft; connexivum well developed, broad.

961. **Perittopus rufus.**

Perittopus rufus, *Fieb.* (ined.)?

Apterous form. Bright reddish-ochraceous; abdomen above a little darker; coxæ and legs luteous; antennæ, apices of the intermediate and posterior femora, bases and apices of all the tibiæ more or less fuscous; eyes piceous; ocelli obscure, situate near eyes; basal joint of antennæ incrassate, almost equal in length to second and third joints, fourth fusiform, slightly longest; rostrum just passing anterior coxæ, its apex black; pronotum sparingly coarsely punctate, with a distinct transverse impression on anterior area; antennæ, lateral margins of pronotum and abdomen, apices of femora and the tibiæ hirsute.

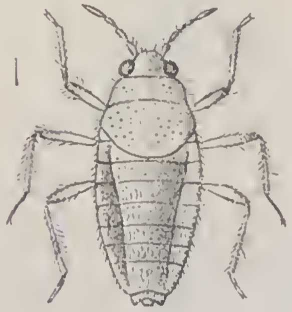

Fig. 128.—*Perittopus rufus.*

Length $2\frac{1}{2}$ millim.

Hab. Tenasserim (*Coll. Dist.*). Siamese Malay States (*Annandale & Robinson*).

Subfamily IV. GERRINÆ.

As previously defined (p. 168), in this subfamily of the Hydrometridæ the posterior femora are long and slender, extending far beyond the abdominal apex.

These are all aquatic insects, and their anatomy, especially the structure and segments of the sternum, has been much misunderstood. It is not the province of these volumes to enter exhaustively on this subject, but Bergroth (Ent. Month. Mag. 1902, p. 258) has cleared up several misconceptions of previous writers.

The *Gerrinæ* have been subdivided by Bianchi into two divisions or, as he proposes, subfamilies; and although Champion considers the characters too unsatisfactory to be used, we do not accept that view, at least so far as this fauna is concerned, and we follow Bianchi's arrangement.

Division *GERRINARIA*.

Subfam. Gerridæ, *Bianchi, Annuaire Mus. St. Pétersb.* 1896, p. 70.

Body comparatively long and narrow; length to breadth being at least 4 : 1. These are all freshwater insects and are widely distributed.

Synopsis of Genera.

A. Anterior tarsi short, not nearly so long as tibiæ.
  a. Eyes large, prominently exserted.
    a. Claws inserted before apex of tarsus . GERRIS, p. 176.
    b. Claws inserted at apex of tarsus .... EOTRECHUS, p. 182.
  b. Eyes not exserted, adpressed to head.
    a'. Intermediate and posterior legs each more than twice as long as body; rostrum reaching middle of mesosternum .... ONYCHOTRECHUS, p. 182.
    b'. Body longer than half the length of either intermediate or posterior legs; rostrum scarcely or about reaching anterior coxæ .... CYLINDROSTETHUS, [p. 184.
B. Anterior tarsi nearly or about as long as the tibiæ; intermediate femora fringed in ♀ with long hairs .... PTILOMERA, p. 185.

Genus GERRIS.

Gerris, *Fabr. Ent. Syst.* iv, p. 187 (1794); *Amy. & Serv. Hém.* p. 414 (1843); *Saund. Hem. Het. Brit. Islds.* p. 151 (1892).
Hydrometra, *Fabr. Syst. Rhyng.* p. 256 (1803); *Fieber, Eur. Hem.* pp. 33 & 106 (1861).
Aquarius, *Schellenb. Land- u. Wasserw.* p. 25 (1800).
Subg. Tenagogonus, *Stål, Öfv. Vet.-Ak. Förh.* x, p. 263 (1853).
,, Limnometra, *Mayr, Reise Novara, Hem.* p. 174 (1866).
,, Limnogonus, *Stål, Hem. Fabr.* i, p. 132 (1868).
,, Limnotrechus, Limnoporus, and Hygrotrechus, *Stål, Öfv. Vet.-Ak. Förh.* 1868, pp. 396, 397.
,, Lamprotrechus, *Reut. Öfv. Finska Vet. Soc. Förh.* xxv, p. 40 (1882).

Type, *G. lacustris*, Linn., a Palæarctic species.

Distribution. Universally distributed.

Head short, eyes large and prominent, ocelli absent; antennæ with the first joint long, sometimes very long; rostrum short; pronotum elongate, posteriorly concavely produced, constricted anteriorly; hemelytra (sometimes absent) with the veins very prominent; anterior coxæ considerably removed from the intermediate pair, intermediate and posterior coxæ situate close together; intermediate and posterior femora and tibiæ long, their proportions variable in different species; tarsi two-jointed; claws emerging before apex.

A. *Antennæ with the first and fourth joints longest; second joint shorter than third.*

962. **Gerris fluviorum**, *Fabr. Ent. Syst. Suppl.* p. 543 (1798); *id.* (Hydrometra) *Syst. Rhyng.* p. 257 (1803); *Stål* (Tenagogonus), *Hem. Afr.* iii, p. 169 (1865); *id.* (Limnometra) *Hem. Fabr.* i, p. 132 (1868).

Pale ochraceous: antennæ, apical joint of rostrum, central longitudinal fascia to head, anteriorly ampliated, a narrow fascia on each side within eyes, sometimes produced and joining the central fascia, also a lateral spot near insertion of antennæ, a sublateral line to pronotum, anteriorly very much ampliated, and a central continuous line, a broad lateral margin to sternum, a broad fascia between anterior and intermediate coxæ, coxal spots, two basal sublateral fasciæ to abdomen, the outermost longest, intermediate and posterior tibiæ and tarsi black; hemelytra fuscous, the veins black; posterior femora infuscated beyond middle; antennæ with the first and fourth joints longest and subequal in length, second distinctly shorter than third; rostrum considerably passing the anterior coxæ; intermediate and posterior femora about equally long, apices of anterior and intermediate femora distinctly spined.

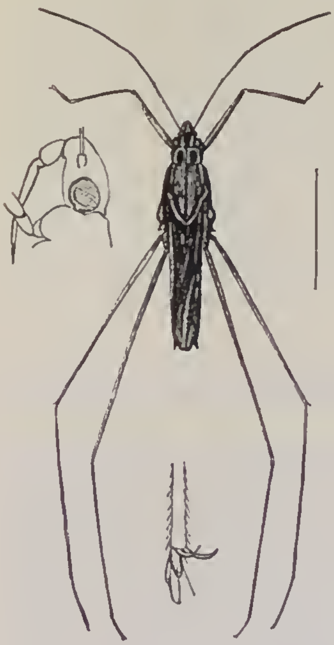

Fig. 129.—*Gerris fluviorum.*

Length 11 to $12\frac{1}{2}$ millim.

Hab. Pondicherry (*Coll. Sign.*). Bombay; Bor Ghát (*Dixon*). Trivandrum (*Brit. Mus.*).—Also recorded from Java and the Island of Bourbon.

963. **Gerris anadyomene**, *Kirk. Entomologist*, 1901, p. 117.

Head and pronotum dull ochraceous; head with two central black lines emerging from a common stalk at base, and a black line before each eye; pronotum with a central, two sublateral and one subposterior lines black, the extreme margins pale luteous; hemelytra fuscous, the veins apically darker; body beneath silvery-grey pubescent; head beneath, prosternum, apex of abdomen, acetabula and coxæ very pale ochraceous; a broken lateral line to sternum, a spot before intermediate acetabula, and two linear spots near intermediate coxæ black; legs and rostrum dull ochraceous; apex of rostrum black; antennæ obscure

pale fuscous, first, third and fourth joints longest and subequal, second shortest.

Length 12 millim.

Hab Ceylon ; Pundaluoya (*Green*).—Philippine Islands (*Simon*).

964. **Gerris gracilicornis**, *Horv.* (Limnotrechus) *Ann. Soc. Ent. Belg.* xxii, p. cix (1879).
Gerris selma, *Kirk. Entomologist*, xxxvi, p. 181 (1903).

Brownish-ochraceous; head and anterior lobe of pronotum piceous; a small spot in front of eyes, lateral margins and a central fascia to anterior pronotal lobe brownish-ochraceous; body beneath greyishly pubescent; rostrum, acetabula, legs and apex of abdomen ochraceous; abdomen above piceous, the connexivum brownish-ochraceous; antennæ ochraceous, the third and fourth joints infuscated, basal joint longest, almost but not quite as long as second and third together; lateral angles of pronotum prominent.

Length 14 to 15 millim.

Hab. Sikhim ; Mungphu (*Atkinson*). Assam.—Japan ; North China.

965. **Gerris nitida**, *Mayr* (Hydrometra), *Verh. z.-b. Ges. Wien*, xv, p. 443 (1865); *id.* (Hydrometra) *Reise Nov., Hem.* p. 170, fig. 51 (1866).

Head and pronotum black, shining; hemelytra piceous with a violaceous reflection, the veins black; head with two longitudinal lines above within eyes, and the under surface, rostrum (excluding apex), two small linear spots on anterior area and the lateral and posterior margins of pronotum, and the legs ochraceous; sternum and abdomen silvery-grey tinged with luteous; lateral areas of sternum, apex of rostrum, and abdominal spiracles black; lateral margins of abdomen ochraceous; antennæ with the first and second joints dull ochraceous, their extreme apices and the third and fourth joints fuscous; first and fourth antennal joints subequal in length and longest, second and third shorter and almost subequal.

Length 6 to 8 millim.

Hab. Trivandrum (*Brit. Mus.*). Ceylon; Peradeniya (*Green*). Burma; Rangoon (*Fea*).

B. *Antennæ with the basal joint longest; second, third and fourth joints almost subequal.*

966. **Gerris fossarum**, *Fabr.* (Cimex) *Syst. Ent.* p. 727 (1775); *id.* (Cimex) *Spec. Ins.* ii, p. 375 (1781); *id.* (Cimex) *Mant. Ins.* ii. p. 308 (1787); *Stål* (Limnogonus), *Hem. Fabr.* i, p. 133 (1868).
Gerris discolor, *Stål, Freg. Eug. Resa, Ins.* p. 265 (1859); *id.* (Limnogonus) *Öfv. Vet.-Ak. Förh.* 1870, p. 705.

Olivaceous-black, shining; a longitudinal line on each side of head within eyes, a spot on inner margin of eyes, lateral and

posterior margins, two small linear spots on anterior area, followed by a continuous central medial line, rostrum and legs pale ochraceous: body beneath pale ochraceous, more or less covered with silvery-grey pubescence; a somewhat broken lateral fascia to sternum, hemelytra and tarsi piceous; antennæ dull ochraceous, apices of first and second joints, and the whole of the third and fourth joints fuscous, basal joint longest, second, third and fourth joints shortest and subequal in length.

Length 9 to 10 millim.

Hab. Bombay; Bor Ghát (*Dixon*).—Malacca, Philippines, China. Australia; Adelaide River (*Brit. Mus.*).

Some confusion has existed respecting this species. When Stål described his *G. discolor* he wrote "*Hydrometora fossarum*? Fabr.," and in his reference to Fabricius's species in his 'Hemiptera Fabriciana' he again remarks: "*L. discolori*, Stål, valde affinis videtur. Exemplum typicum maxime mutilum, haud discribendum." If we eliminate Wolff's description and figure (Ic. ii, p. 118, fig. 112) which that writer ascribed to this species, but which certainly do not agree with it, I think we may well accept Stål's doubts as to the possibility of separating *discolor*, Stål, from *fossarum*, Fabr.

967. **Gerris sahlbergi**, *Dist. Tr. E. S.* 1879, p. 125; *id. Sec. Yark. Miss., Rhynch.* p. 12, fig. 10 (1879).

Head thickly covered with olivaceous pubescence, with a small black spot on vertex; antennæ ochraceous; pronotum ochraceous, pubescent, anterior area, lateral and posterior margins, and a central longitudinal line olivaceous (the central line is sometimes largely ochraceous, and always ochraceous on the anterior pronotal area); hemelytra brownish-ochraceous, with the veins olivaceous: body beneath silvery-grey, pubescent, the central area, lateral margins and apex of abdomen ochraceous; legs ochraceous, anterior femora with an outer longitudinal blackish fascia. Antennæ with the first joint longest, almost as long as second and third joints together, which are subequal in length, fourth a little longer than third.

Length 8 to 10 millim.

Hab. Ladák; Leh (*Stoliczka*).

968. **Gerris tristan**, *Kirk. Rev. d'Ent.* 1899, p. 88.

Head black, with a large basal irregularly shaped dark ochraceous spot; antennæ ochraceous, second (excluding base) and third joints fuscous (fourth joint mutilated in typical specimen); pronotum shining black, lateral and posterior margins luteous, an ochraceous spot on centre of anterior area; rostrum ochraceous, its apex black: body beneath silvery-grey pubescent; prosternum and apical abdominal area very pale ochraceous, a small central black spot at base of abdomen; hemelytra fuscous, the veins darker; legs ochraceous; antennæ with the first joint about as

long as or a little longer than the second and third joints together; pronotum with a pronounced central longitudinal carination.

Length 6 to $6\frac{1}{2}$ millim.

Hab. Ceylon (*Green*).

C. *Antennæ with the basal joint very long, about as long as remaining joints taken together.*

969. **Gerris paludum**, *Fabr. Ent. Syst.* iv, p. 188 (1794); *Amy. & Serv. Hém.* p. 417 (1843); *Herr.-Schäff.* (Hydrometra) *Wanz.* ix, pp. 67, 70, fig. 926 (1853); *Fieber* (Hydrometra), *Eur. Hem.* p. 106 (1861).
Compl. syn. cf. *Leth. & Sev. Cat. Gén. Hém.* iii, p. 62 (1896).

Black, opaque; body beneath silvery-grey pubescent; base of rostrum, coxæ, trochanters and extreme bases of femora very pale fulvous; pronotum with a strong central longitudinal carinate line; hemelytra with the veins very strong and prominent; legs fuscous; antennæ with the basal joint very long, about as long as the other three joints taken together.

Length 12 to 13 millim.

Hab. Burma; Karennee (*Fea*).—A well-known Palæarctic species, already recorded from Turkestan.

970. **Gerris spinolæ**, *Leth. & Sev. Cat. Gén. Hém.* iii, p. 63 (1896).
Gerris argentata, *Spin. Ess. Hem.* p. 65 (1840), nom. præocc.

Head, rostrum, pronotum and anterior legs black; intermediate and posterior legs piceous-brown; a central line to anterior area, and lateral margins narrowly, and posterior margins more broadly, of posterior area of pronotum brownish-ochraceous; hemelytra pale brownish, the lateral margins and the veins piceous: body beneath thickly clothed with silvery-grey pubescence; coxæ, trochanters, bases of anterior femora, base of rostrum and apex of abdomen dull ochraceous; head, pronotum and legs finely pubescent; pronotum transversely impressed before middle, its posterior area with a distinct central longitudinal carination; antennæ with the first joint about as long as the remaining joints together, third joint much shorter than second, a little shorter than fourth.

Length 11 to $12\frac{1}{2}$ millim.

Hab. "North India" (*Coll. Sign.*). Calcutta. Ceylon (*Brit. Mus.*). Burma: Toungoo (*Fea*).—China.

Position uncertain.

971. **Gerris armata**, *Spin. Ess. Hem.* p. 65 (1840); *Mayr* (Limnometra), *Reise Nov., Hem.* p. 175 (1866).

"Apterous, hemelytra rudimentary; intermediate coxæ armed laterally with a small spine"; abdomen black above, a testaceous spot on the disks of the third, fourth, fifth and sixth segments; in other respects the description of the species agrees with that of

G. fluviorum, Fabr., from which it is separated by the constant and remarkable character found on the intermediate coxæ.

Length "5 lines" (? 10 millim.).

Hab. Bombay (*Dupont*). Coromandel (*Maindron*). Ceylon (*fide Mayr*).

I have been shown a specimen of this species from Coromandel, now in the collection of Mr. Kirkaldy, which is almost inseparable from *G. fluviorum*, save the very distinct spine on the intermediate coxæ. This specimen was fully winged and developed, but as the antennæ were mutilated I cannot locate the species sectionally by the characters of those organs.

Species not seen by the writer, and therefore not placed in generic sections.

972. **Gerris pectoralis**, *Mayr* (Hydrometra), *Verh. z.-b. Ges. Wien*, xv, p. 443 (1865); *id.* (Hydrometra), *Reise Nov., Hem.* p. 170, fig. 50 (1866).

Black, opaque; head with two lines between eyes, and beneath with rostrum, a median longitudinal line, narrow lateral and posterior margins to pronotum, sternum and abdomen pale flavous; sternum with three black striæ on each side; a lateral longitudinal line to abdomen black; legs fuscous-testaceous, above obscure; tarsi black; sixth abdominal segment on each side triangularly acutely toothed.

Length 7 to 7·3 millim.

Hab. Ceylon.

973. **Gerris adelaidis**, *Dohrn, Stett. ent. Zeit.* xxi, p. 408 (1860).

Black, sericeous; head with a basal semilunular pale fulvous spot; pronotum with a central carinate line which is anteriorly fulvous, the lateral and posterior margins palely fulvous; hemelytra palely fulvous, outwardly black, the veins black; legs blackish, bases griseous-fulvous; rostrum with the base palely fulvous.

Length $11\frac{1}{2}$ millim.

Hab. Ceylon (*fide Dohrn*).

974. **Gerris minuta**, *Mayr* (Limnometra), *Verh. z.-b. Ges. Wien*, xv, p. 444 (1865); *id.* (Limnometra), *Reise Nov., Hem.* p. 176 (1866).

Fulvous; head with four brown lines between the eyes; pronotum with three black narrow longitudinal lines, and anteriorly two brown lines; mesosternum on each side at margin of pronotum with two narrow fuscous lines, outside a pilose white striga; hemelytra cinereous-brown, lateral margins fuscous; posterior legs brownish-testaceous; abdomen with the sixth segment on each side triangularly dentate.

Length $8\frac{1}{2}$ millim.

Hab. Nicobar Islands; Sambelong (*fide Mayr*).

Genus EOTRECHUS.

Eotrechus, *Kirk. Entomologist*, 1902, p. 137.

Type, *E. kalidasa*, Kirk.
Distribution. Burma.

This genus has been founded on the following characters:—"Facies of *Gerris*, Fabr., but distinguished by each tarsus being terminated by two strong, curved, *apical*, aroliated claws. Tibiæ cylindrical, not tapering." In all other respects *Eotrechus* is very closely allied to *Gerris*.

975. **Eotrechus kalidasa,** *Kirk. Entomologist*, 1902, p. 137.

Dark chocolate-brown; posterior pronotal lobe castaneous, anterior lobe with the lateral margins and a central narrow longitudinal fascia ochraceous; hemelytra with the lateral margins and veins a little paler, and with some opaque, cellular, piceous spots; abdomen beneath, legs and antennæ ochraceous; femora with their apices broadly piceous; head beneath centrally piceous; rostrum ochraceous, its apex piceous; antennæ with the first and second joints longest and subequal, third and fourth a little shorter and subequal; pronotum distinctly ridged between the lateral angles, which are subprominent and carinate, from thence distinctly obliquely deflected to apex, the apical margin broadly rounded.

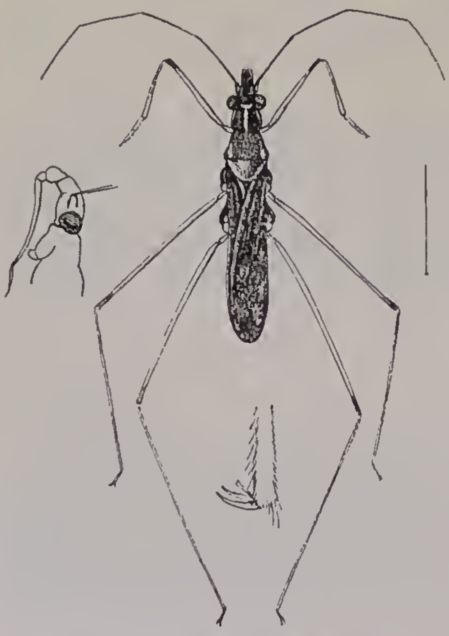

Fig. 130.—*Eotrechus kalidasa.*

Length 10 to $10\frac{1}{2}$ millim.
Hab. Burma; Karennee (*Fea*).

Genus ONYCHOTRECHUS.

Onychotrechus, *Kirk. Entomologist*, 1903, p. 44.

Type, *O. rhexenor*, Kirk.
Distribution. Oriental Region.

The following characters have been relied on for the separation of *Onychotrechus*:—"Closely allied to *Gerris*, and intermediate between the latter and *Eotrechus*. It differs from the former by the long

posterior claws, and from the latter by the claws being somewhat post-apical and inserted in a cleft in the tarsi." First joint of antennæ shorter than any two other joints together; intermediate and posterior legs each more than twice as long as body; second joint of anterior tarsi three times as long as first. Eyes not prominently exserted, adpressed to head; rostrum reaching the middle of the mesosternum.

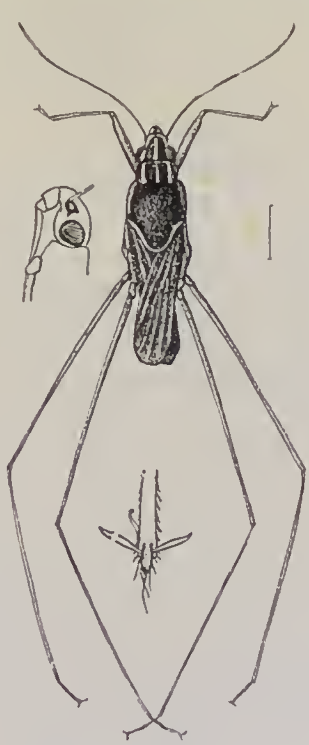

Fig. 131.
Onychotrechus rhexenor.

976. **Onychotrechus rhexenor**, *Kirk. Entomologist*, 1903, p. 44.

Head and pronotum piceous; lateral margins and a median line to head, lateral margins and three discal longitudinal lines to anterior pronotal lobe, head beneath, and rostrum ochraceous; lateral and posterior margins of posterior pronotal lobe greyish white; hemelytra, legs and antennæ pale fuscous, veins to hemelytra distinct: body beneath greyishly pubescent; prosternum, coxæ, trochanters, bases of femora and apex of abdomen very pale ochraceous: first joint of antennæ longest, second longer than either third or fourth, which are almost subequal in length.

Length $5\frac{3}{4}$ millim.

Hab. South India; Kanara (*Coll. Dist.*).

977. **Onychotrechus sakuntala**, *Kirk.* (Gerris) *Entomologist*, 1901, p. 117.

Black, palely pubescent; a central line and anterior lateral margins to head, extreme lateral margins of pronotum, and three longitudinal fasciæ (central narrowest) to anterior lobe pale ochraceous: hemelytra fuscous, the veins and posterior pronotal margin pale pubescent; sternum silvery-grey; abdomen pale ochraceous; lateral margins of sternum and abdomen black, that of sternum containing two ochraceous lines; coxæ, legs and rostrum ochraceous; apices of the femora and the tarsi fuscous; antennæ with the basal joint ochraceous, the remaining joints infuscated, the joints almost subequal in length.

Length $5\frac{1}{2}$ millim.

Hab. Ceylon: Pundaluoya (*Green*). Burma (*Coll. Dist.*).

This and the preceding species, although described by Mr. Kirkaldy in different genera, are questionably distinct, and will

probably prove to be the same, when a longer series of specimens can be compared. I have examined and compared the types of both species.

Genus CYLINDROSTETHUS.

Hydrobates, *Erichs. in Schomb. Faun. Brit. Guiana*, p. 614 (1848), nom. pæocc.
Cylindrostethus, *Fieb. Europ. Hem.* p. 33 (1861); *Kirk. Entomologist*, 1897, p. 258.

Type, *C. linearis*, Erichs., a Neotropical species.

Distribution. Neotropical and Oriental Regions.

This genus may be easily recognized by the position and structure of the eyes, which are not exserted, but are long and placed obliquely on the sides of the head; the rostrum is also very short, scarcely or only just reaching the anterior coxæ. As Bergroth has remarked in this genus, the metasternum apparently consists of two segments, it being divided by a more or less distinct, transverse, impressed line a little before the posterior margin.

978. **Cylindrostethus productus**, *Spin.* (Gerris) *Ess. Hem.* p. 64 (1840).
Cylindrostethus fieberi, *Mayr, Verh. z.-b. Ges. Wien*, xv, p. 444 (1865).

Piceous-black; disks of sternum and abdomen, a central line to head, broadest between eyes and continued on anterior area of pronotum, posterior margin and sometimes also a narrow central discal line to posterior pronotal area, margins of connexivum, and legs testaceous; antennæ, apices of femora, anterior femora above and beneath, bases of intermediate and posterior femora above, and apices of tibiæ, anterior tibiæ and tarsi and posterior tarsi piceous; a lateral fascia on each side of body silvery-grey; antennæ with the first joint longer than the second and third joints together, third shortest, second and fourth subequal.

Fig. 132.
Cylindrostethus productus.

Length 25 millim.

Hab. Travancore (*Coll. Dist.*). Bombay (*Dupont*). Ceylon; Kandy (*Green*).

979. **Cylindrostethus scrutator**, *Kirk.* (Gerris) *Rev. d'Ent.* xviii, p. 98 (1899).

Dark olivaceous-black; a small spot at base of head and posterior margin of pronotum ferruginous-brown; hemelytra

purplish-brown, the veins black; a lateral marginal fascia to pronotum, lateral areas of acetabula, and a submarginal lateral fascia to abdomen silvery-grey; apices of femora, and the tibiæ and tarsi to intermediate and posterior legs pale castaneous; head and anterior area of pronotum more or less olivaceously pubescent, the last centrally foveate, the posterior pronotal lobe centrally carinate: antennæ with the first joint longer than the second and third together, second and fourth joints subequal in length.

Length 12 to 14 millim.

Hab. Upper Tenasserim (*Coll. Dist.*).

Genus PTILOMERA.

Ptilomera, *Amy. & Serv. Hém.* p. 413 (1843).

Type, *P. laticaudata*, Hardw.

Distribution. Oriental Region and China.

Antennæ nearly as long as the body, first joint almost as long as the other three joints together; rostrum short; sternum about half the length of the body; abdomen in ♀ terminating in an angulated club; anterior legs short, strong, the femora longer than the tibiæ, the last with a distinct apical spine; anterior tarsi almost as long as the tibiæ; intermediate femora fringed with long hairs in the ♀.

980. **Ptilomera laticaudata**, *Hardw.* (Gerris) *Trans. Linn. Soc.* xiv, p. 134, pl. vi, ff. 1–4 (1825).
Ptilomera laticauda, *Amy. & Serv. Hém.* p. 414, pl. viii, f. 3 (1843); *Herr.-Schäff. Wanz. Ins.* ix, p. 65, f. 940 (1853).
Ptilomera cingalensis, *Stål, Öfv. Vet.-Ak. Förh.* xii, p. 190 (1856).
Ptilomera tigrina, *Uhler, Proc. Ac. Philad.* 1860. p. 230.

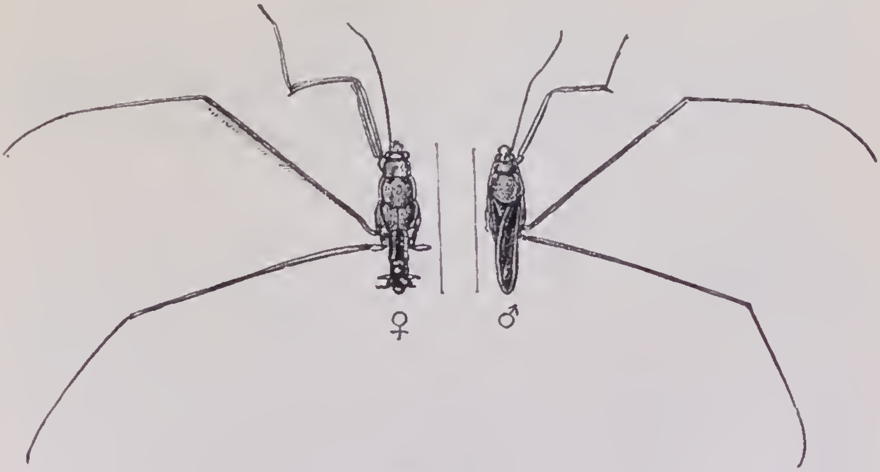

Fig. 133.—*Ptilomera laticaudata.*

Pale chocolate-brown; hemelytra when present darker with their margins paler; sternum and abdomen beneath pale silvery-

grey; antennæ, eyes, anterior angles of posterior lobe of pronotum, disk of abdomen above and apex of rostrum piceous; lateral margins of body silvery-grey; anterior femora with two narrow piceous fasciæ above, and a broad piceous fascia beneath.

Length, ♂ and ♀, 13 to 15 millim.

Hab. Nepal. Nilgiri Hills (*Hampson*). Ceylon; Pundaluoya (*Green*). Burma; Toungoo (*Thompson*).—Found in many islands of the Malay Archipelago.

Division *HALOBATINARIA*.

Subfam. Halobatinæ, *Bianchi, Annuaire Mus. St. Pétersb.* 1896 p. 70.

Body short and broad; length in proportion to breadth not much more than 3:1. This division comprises both salt- and fresh-water species, which are probably still but moderately known to entomologists owing to their peculiar habits and the consequent difficulty in capturing specimens. They are all distinctly surface insects.

Synopsis of Genera.

A. Intermediate tibiæ and first joint of intermediate tarsi with a fringe of long hairs; posterior tarsi one-jointed .... HALOBATES, p. 186.

B. Intermediate tibiæ and tarsi without fringe of long hairs.

a. Basal joint of anterior tarsi nearly twice as long as second .... CHIMARRHOMETRA, p. 190.

b. Basal joint of anterior tarsi much shorter than second .... METROCORIS, p. 188.

Genus **HALOBATES**.

Halobates, *Eschsch. Entomogr.* p. 106 (1822); *id. Nat. Abhandl. Dorp.* 1823, i. p. 163; *Lap. Ess. Hem.* p. 24 (1832); *Amy. & Serv. Hém.* p. 411 (1843); *Mayr, Reise Nov., Hem.* p. 169 (1866): *Buch. White, Rep. Voy. 'Challenger,' Zool.* vii (19), pp. 2, 23, pls. i–iii (1883); *Bergr. Ent. Month. Mag.* 1902, p. 258.

Type. *H. micans*, Eschsch.

Distribution. Found in most of the warm or warm temperate oceanic regions.

Body oval or oblong; head short triangular; antennæ four-jointed, first joint longest; rostrum four-jointed, first and second joints very short, third joint longest; eyes large, touching anterior angles of the pronotum; prothorax broader than long, not confluent with mesothorax, which with the metathorax is coalescent; scutellum, hemelytra and wings absent; anterior legs short, stout, tibiæ with a dentiform process near apex, tarsi two-jointed; intermediate and posterior legs long, slender, posterior legs inserted above the intermediate legs; intermediate tibiæ and first joint of

tarsi fringed with long hairs, tarsi two-jointed; posterior legs with one-jointed tarsi.

Oceanic insects, often found at great distances from land.

981. **Halobates frauenfeldanus**, *Buch. White, Rep. Voy. 'Challenger.' Zool.* vii, p. 57, pl. ii, f. 3 (1883); *Witl. Wien. ent. Zeit.* v. p. 232 (1886).

Halobates micans, part., *Frauenf. Verh. z.-b. Ges. Wien*, xvii, p. 458 (1867).

Halobates flaviventris, *Frauenf. loc. cit.* p. 459, t. xii, ff. 3, 4, 7–9, *nec Esch.*

"Oval, widest behind the middle (♀). Pale hoary ash-grey above; head with a brownish-yellow spot on each side posteriorly, united to a narrow line of the same colour on the hind margin; antennæ with the basal halves of the joints, prosternum, mesosternum with a central longitudinal line broadest behind and narrower in front (absent in the ♂), ventral segments of the abdomen, a spot near the insertion of each of the legs, the front femora below, and a more or less extensive spot at the base above, as well as the underside of the coxæ of the middle and hind legs yellow; front femora black above; second, third and fourth joints of antennæ equal in length; front tarsus with first joint about one-third shorter than the second joint; middle tarsus with first joint two and one-half times the length of the second." (*Buch. White.*)

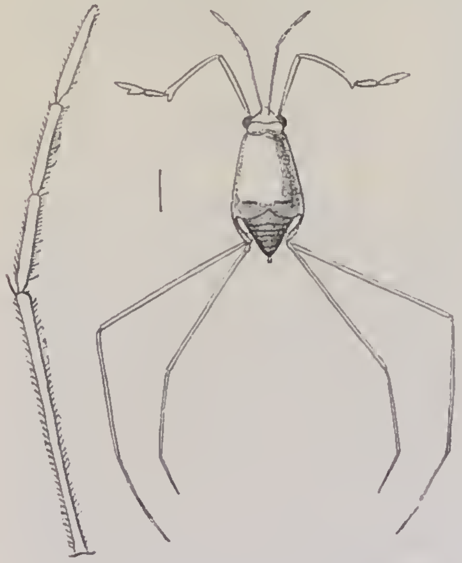

Fig. 134.—*Halobates frauenfeldanus.*

♂. Length 4·1; breadth 1·9; middle femur 5·1 millim.
♀. " 4·2; " 2·4; " 5 "

Hab. Indian Ocean, near the Nicobar Islands (*Frauenfeld*).

Buchanan White had, like myself, not seen the species; he had carefully compiled the diagnosis and description from Frauenfeld's paper, and I have copied White above.

982. **Halobates micans**, *Esch. Entomographien*, i, p. 107, Taf. ii, f. 3 (1822); *Frauenf. Verh. z.-b. Ges. Wien*, xvii, p. 458, Taf. xii, f. 5 (1867); *Dahl. Ergeb. der Plankton Exp.* ii, p. 4, ff. 1, 2, 3, 6 (1893); *Buch. White, Rep. Voy. 'Challenger,' Zool.* vii, p. 43, pl. i, f. 2 (1883).

This is another species I have not seen. Buchanan White, who was in the same position, drew up the following description from

the writings of Eschscholtz and Frauenfeld :—" ♀. Closely allied to *Halobates wüllerstorffi*. Widely oval or conical ; hoary ash-grey or blackish grey, somewhat shining, brighter coloured below ; with (according to Eschscholtz) brassy reflections, which, however, Frauenfeld denies ; eyes black ; antennæ and legs black, the front femora bluish ; abdomen whitish grey ; antennæ and legs black, the front femora bluish ; abdomen whitish grey ; antennæ rather slender, rather longer than half the body, first joint as long as the other three together, second and third equal in length, fourth joint longer than the third ; pronotum strongly concave in front, nearly straight behind ; disk with two rather long foveæ anteriorly ; mesonotum strongly convex anteriorly."

♀. Length 4 ; breadth 2·25 ; middle femur 4·6 millim.

Hab. Indian Ocean, near Ceylon, lat. 3° N. (*Frauenfeld*).—Also reported by Eschscholtz from the South Pacific and South Atlantic Oceans.

983. **Halobates flaviventris**, *Esch. Entomographien*, i, p. 109, t. ii, f. 5 (1822); *Buch. White, Rep. Voy. 'Challenger,' Zool.* vii, p. 55, pl. ii, f. 2 (1883).

"Oblong, widest in the middle ; slaty-grey, silvery-white on the sides and below ; head with an oblique transverse reddish-yellow mark (nearly joining at the middle of the hind margin) on each side posteriorly ; antennæ and legs brownish-black ; front acetabula with outer rim very narrowly, a long triangular blotch in front of the middle acetabula below, hind acetabula with a spot on the outer side, abdomen below (except the sides narrowly), genital segments, disk of the first below and underside of the horns of the second ochreous-yellow ; third genital segment above and below brownish-black, the disk of the third below and apex reddish-yellow ; antennæ with the third joint about two-thirds the length of the second, fourth a little shorter than the second ; front tarsus with the first joint about one-fifth shorter than the second, which is cleft before the middle ; middle tarsus with the first joint two and one-half times the length of the second." (*Buch. White.*)

♂. Length 5 ; breadth 2 ; middle femur 6 ; hind femur 4·5 millim.

Hab. Indian Ocean, near Ceylon (*Oxford Mus.*).—According to Eschscholtz, South Atlantic ; Fairmaire determined some specimens taken near Madagascar as belonging to this species.

Genus METROCORIS.

Metrocoris, *Mayr, Verh. z.-b. Ges. Wien*, xv, p. 445 (1865) ; *id. Reise Nov., Hem.* pp. 169 & 178 (1866) ; *Mein. Ent. Medd.* p. 140 (1888).

Halobatodes, *Buch. White, Rep. Voy. 'Challenger,' Zool.* vii (19), pp. 23 & 58 (1883).

Type, *M. stâli*, Dohrn.

Distribution. Oriental and Eastern Palæarctic Regions.

This genus differs from *Halobates* by the intermediate tibiæ and

tarsi being without the fringe of long hairs; from *Chimarrhometra* it may at once be distinguished by the structural character of the basal joint of the anterior tarsi, which is much shorter than the second joint.

984. **Metrocoris compar**, *Buch. White* (Halobatodes), *Rep. Voy. 'Challenger,' Zool.* vii (19), p. 68, pl. ii, f. 6 (1883).

"Oblong-oval, widest behind the middle; dull black, with yellowish-testaceous lines and spots; underside of body dull black;

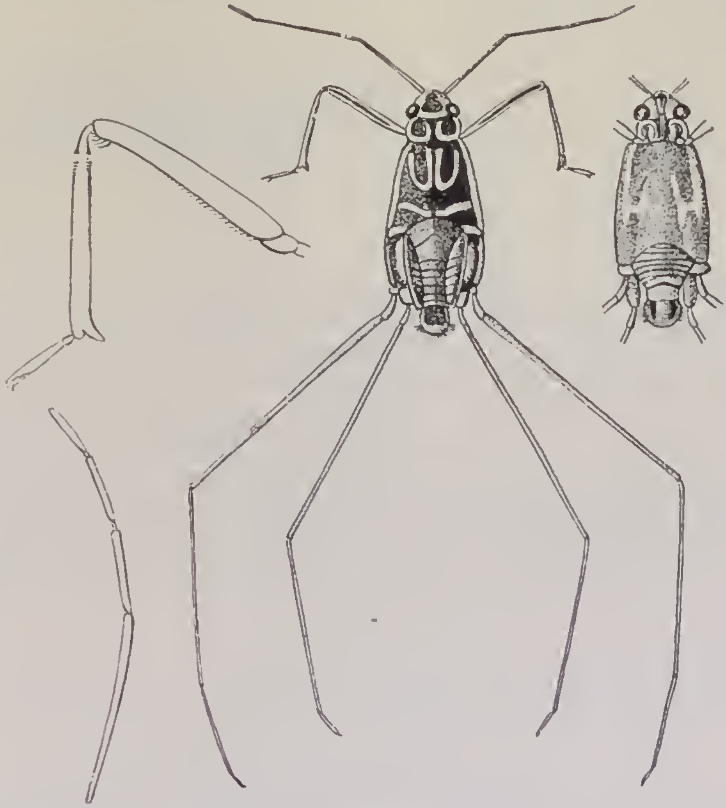

Fig. 135.—*Metrocoris compar.*

anterior femora of male without a tubercle near the centre and no notch near the apex." (*Buch. White.*)

♂. Length 6·5; breadth 2·5; mid. femur 7; hind femur 7 mm.
♀. „ 6; „ 3; „ 7; „ 7·5 „
Hab. India (*Westw. Coll., Oxford*).

985. **Metrocoris illustrarius**, sp. n.

♀. Above obscure opaque purplish-brown: anteocular portion of head ochraceous, with three large black spots, two discal and one frontal; postocular area, excluding hind margin, black, with two luteous discal spots, a central line and the hind margin

purplish-brown; pronotum with two large ovate luteous spots, each divided by an elongate black spot which is clavate at each end; on anterior disk a curved oblique luteous spot inwardly margined with black on each side of posterior area; a pale greyish spot on upper sides of both intermediate and posterior coxæ; abdomen with a segmental series of transverse black spots on each side; body beneath and bases of anterior femora luteous. Ovate, widest at middle, where it is obtusely angulate; antennæ piceous, base of first joint ochraceous; rostrum luteous, its apex piceous; intermediate femora slightly longer and stouter than posterior femora; anterior tibiæ stout, slightly shorter than femora.

♀. Length $3\frac{1}{2}$ millim.

Hab. Ceylon (*Green, Brit. Mus.*).

986. **Metrocoris ståli**, *Dohrn* (Halobates), *Stett. ent. Zeit.* xxi, p. 408 (1860).
Metrocoris brevis, *Mayr, Verh. z.-b. Ges. Wien*, xv, p. 445 (1865); *id. Reise Nov., Hem.* p. 179, pl. i, f. 56 (1866).

Above black, opaque; head dull flavous-testaceous, with a large central and three smaller anterior spots black; pronotum with two anterior semicircular spots, on the posterior area two parallel longitudinal spots, one on each side shaped like a comma, another on each side transverse and semicircular, a third smaller spot on each side at the apex of the disk, more posteriorly one transverse, two longitudinal, and three smaller apical spots flavous-testaceous; lateral areas and body beneath flavous-testaceous, the first with longitudinal black streaks; anterior coxæ, excepting a black spot above, and the femora, excepting three more or less broad black lines, flavous-testaceous; antennæ, intermediate and posterior legs, and anterior tibiæ blackish; rostrum flavous-testaceous, its apex black.

Length 7 millim.

Hab. Nilgiri Hills (*Maindron*). Ceylon (*fide Dohrn & Mayr*).

Genus CHIMARRHOMETRA.

Chimarrhometra, *Bianchi, Annuaire Mus. St. Pétersb.* 1896, p. 71.

Type, *C. orientalis*, Dist.

Distribution. Oriental Region.

Basal joint of anterior tarsi nearly twice as long as the second; anterior femora much incrassated, much thicker than the middle ones; intermediate and posterior tarsi robust, not nearly hair-like; second joint of the antennæ more than two-thirds the length of the third.

987. **Chimarrhometra orientalis**, *Dist.* (Halobates?) *Tr. E. S.* 1879, p. 126; *id.* (gen.?) *Sec. Yark. Miss., Rhynch.* p. 12, ff. 11, 12 (1879); *Bianchi, Annuaire Mus. St. Pétersb.* 1896, p. 71.

Brownish-ochraceous, finely pilose; antennæ with the first joint

curved, robust, and about the length of head and pronotum together, remaining joints more slender, second and third subequal, fourth a little shorter than third: pronotum with a median pale longitudinal line, and a large rounded fovea on posterior portion of disk; rostrum five-jointed, first two joints very robust and somewhat fused together, second minute and much shorter than first, third much the longest, fourth small, slender and black, fifth ochraceous, very slender and hair-like: sternum greyishly pilose; eyes large, semiglobular, and castaneous; pronotum about the length of head, but broader, truncate anteriorly, rounded posteriorly; mesonotum and metanotum hardly distinguishable, much longer than pronotum, and gradually and regularly widened posteriorly; legs ochraceous, anterior femora much thickened.

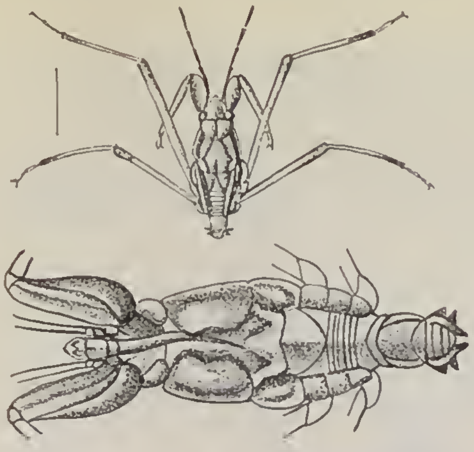

Fig. 136.—*Chimarrhometra orientalis.*

Length 7 to 8 millim.

Hab. Jhelam Valley (*Stoliczka*).

Bianchi states that this is a freshwater Himalayan species.

Genus of doubtful position.

Genus **HEMIDIPTERA.**

Hemidiptera, *Léon, Jenaisch. Zeit. Nat.* xxv, p. 13 (1890).

Type, *H. haeckeli*, Léon.

Distribution. Ceylon.

This genus was founded by Léon on a specimen brought by Haeckel from Ceylon with a number of *Halobates.* It was preserved in Canada balsam, which made its examination very difficult. Léon's interest was principally devoted to the mouth-parts, and from his microscopical examination he concluded, in agreement with Dr. Arnold Lang, that the insect was not a *Halobates*, but more like a Dipteron, though its mouth was formed after the Rhynchotal plan. He therefore considered it belonged to neither of the two Orders mentioned, but to one intermediate between the Rhynchota and Diptera. Dr. Bergroth (Wien. ent. Zeit. xi, p. 169, 1892) has, to our view, successfully proved its Rhynchotal relationship, and we entirely agree with his suggestion, looking at the figure, that the hemelytra have probably been torn off. It is therefore

impossible to give true or any commensurate generic characters till other specimens have been received, as the figure alone is at present available for study.

988. **Hemidiptera hæckeli,** *Léon, Jenaisch. Zeit. Nat.* xxv, p. 13 (1890) ; *Bergr. Wien. ent. Zeit.* xi, p. 169 (1892).

The same remarks as made on generic characters apply to any specific diagnosis. Léon describes the antennæ as five-jointed, but the true joints are clearly only four ; the absence of hemelytra

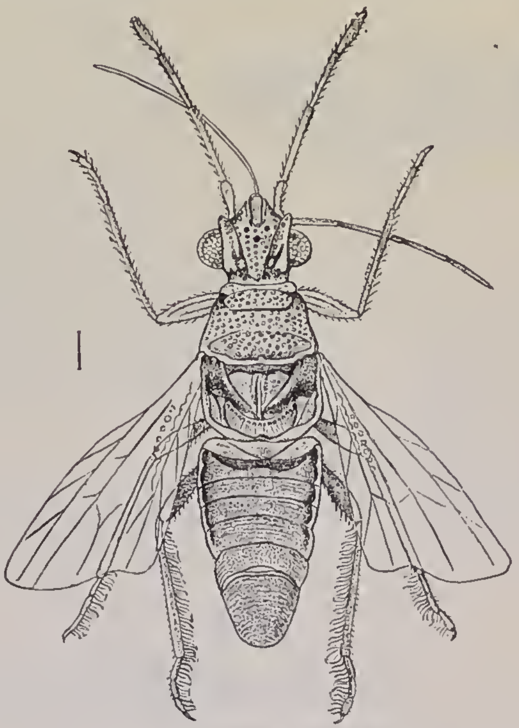

Fig. 137.—*Hemidiptera hæckeli.*

has been already discussed ; the rostrum is described as four-jointed, second joint longer than first, third longer than second, and fourth longer than first ; legs formed for swimming, thickly clothed with long hairs.

Length 4 millim.

Hab. Ceylon (*Haeckel*).

Family HENICOCEPHALIDÆ.

This is a very small family, founded on a single genus, though Bergroth has referred to a second genus the published description of which has not appeared.

These insects often appear in swarms like gnats, as recorded by Blanchard and Berg in South America and by Green in Ceylon.

Their peculiar structure, especially of the head and pronotum, as detailed in the description of the typical genus, renders this family very easily recognizable. The venation of the tegmina has been minutely described by Kirby (Journ. Linn. Soc., Zool. xxiv, p. 116, 1891), and figured by Kirkaldy (Ent. Month. Mag. 1901, p. 219).

Genus HENICOCEPHALUS.

Enicocephalus, *Westw. Tr. E. S.* ii, p. 22 (1837); *Stål, Bid. till Rio-Jan. Hem.* i, p. 81 (1858).
Henicocephalus, *Stål, Hem. Afr.* iii, p. 166 (1865); *Bergr. Rev. d'Ent.* viii, p. 319 (1889); *Champ. Biol. Centr.-Am., Rhynch.* ii, p. 158 (1898).
Systelloderes, *Blanch. in Gay, Hist. de Chile*, vii, p. 224 (1852).
Oncylocotis, *Stål, Öfv. Vet.-Ak. Förh.* xii, p. 44 (1855).
Stenopirates, *Walk. Cat. Het.* vii, p. 139 (1873).
Dicephalus, *Kirby, J. Linn. Soc., Zool.* xxiv, p. 115 (1891).
Henschiella, *Horv. Rev. d'Ent.* vii, p. 169 (1888).
Hymenodectes, *Uhler, Tr. Maryland Acad. Sci.* 1892, p. 180.
Hymenocoris, *Uhler, tom. cit.* p. 181.

Type, *H. flavicollis*, Westw., a Neotropical species.

Distribution. Apparently of universal distribution.

Body oblong, depressed; head narrowed and prolonged anteriorly, distinctly divided into two divisions by a transverse impression behind eyes, the posterior lobe globose; antennæ a little longer than the pronotum, four-jointed, second joint longest; pronotum with two transverse constrictions, thus exhibiting three distinct lobes; anterior legs subraptorial, the femora more or less incrassated, the anterior tarsi armed with either one or two long apical claws; intermediate and posterior legs moderate, with their tarsi two-jointed *, a short basal and a long apical one; hemelytra complete, the veins robust.

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* Westwood, who founded the genus, and some subsequent writers have described these tarsi as three-jointed, but we agree with Champion in considering them two-jointed only.

A. *Posterior lobe of pronotum distinctly wider than middle lobe.*

989. **Henicocephalus collaris**, *Walk.* (Stenopirates), *Cat. Het.* vii, p. 139 (1873); *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 52 (1903).

Fig. 138.—*Henicocephalus collaris.*

Var. *a.* Piceous; anterior and posterior area of head, base and lateral margins of hemelytra, legs and rostrum sanguineous.

Var. *b.* Piceous; margins of hemelytra and the legs sanguineous; anterior femora piceous at base.

Var. *c.* As in var. *b*, but with the anterior tibiæ piceous, sanguineous at base.

Antennæ with third joint much longer than fourth; middle lobe of pronotum smooth, not sculptured, a little longer than posterior lobe and about three times the length of anterior lobe, centrally very finely sulcate, anterior tibiæ with two apical claws.

Length $6\frac{1}{2}$ to 7 millim.

Hab. "North India" (*Brit. Mus.*). Burma; Karennee (*Fea*).

990. **Henicocephalus majusculus**, *Dist. A. M. N. H.* (7) x, p. 175 (1902).

Head, pronotum and sternum dull reddish-ochraceous; hemelytra piceous; base and lateral margins of hemelytra, legs and abdomen stramineous; abdomen with the lateral areas mottled with brownish; antennæ pale fuscous-brown, basal and apical joints paler in hue. Antennæ finely pilose, second joint slightly longer than the third; anterior lobe of pronotum behind the pronotal collar moderately sculptured and centrally discally sulcate; legs somewhat strongly pilose; eyes black. ♀.

Length 11 millim.

Hab. Ceylon (*Green*, *Brit. Mus.*).

991. **Henicocephalus telescopicus**, *Kirby* (Dicephalus), *Journ. Linn. Soc., Zool.* xxiv, p. 117, pl. iv, f. 14 (1891).

Head, pronotum, sternum and hemelytra fuscous-brown; legs and abdomen beneath ochraceous; sublateral segmental abdominal spots, anal segment and anterior femora pale brownish; antennæ brownish-ochraceous, second joint longest, third subequal to or shorter than fourth—variable in this respect; posterior lobe of head shorter than anterior lobe, these two lobes together about as long as pronotum.

Length 7 millim.

Hab. Ceylon; Pundaluoya (*Green*).

Found by Mr. Green "flying in bright sunshine in open glade

of jungle near felled timber. Flight sustained; three or four insects found frequently playing together like common flies in a room, or like Ephemeridæ."

B. *Middle and posterior lobes of pronotum almost equally wide.*

992. **Henicocephalus robustus**, sp. n.

Head and pronotum pale castaneous; hemelytra dark fuscous, the base and basal area more or less lutescent; body beneath fuscous-brown; legs ochraceous; antennæ fuscous, apex of third and whole fourth joint, except the extreme base, ochraceous: second joint longest, third joint longer than fourth; posterior lobe of head shorter than anterior lobe, the two lobes together about as long as the pronotum; anterior tarsi armed with two apical claws.

Length 7 to 8 millim.

Hab. Ceylon; Pundaluoya (*Green*). Burma; Karennee (*Coll. Dist.*).

993. **Henicocephalus basalis,** *Westw.* (Enicocephalus) *Tr. E. S.* ii, p. 23 (1837).

Henicocephalus ostentus, *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 52 (1903).

Piceous, finely greyishly pilose; head behind eyes, extreme posterior margin of pronotum, clavus (excluding apex), basal angles and lateral margins of hemelytra, coxæ, bases and apices of femora, tibiæ and tarsi, and posterior margin of prosternum ochraceous; second joint of antennæ a little longest, third joint slightly longer than fourth; middle lobe of pronotum sculptured, a little longer than the posterior lobe, which is centrally obscurely sulcate and centrally sinuate in front of the scutellum; hemelytra slightly widened posteriorly; anterior tibiæ with two apical claws.

Length 8 millim.

Hab. Bengal (*Oxford Mus.*). Bombay; Bor Ghát (*Dixon*). Coromandel (*Maindron*). Burma; Teinzo (*Fea*).

I am indebted to Prof. Poulton for allowing me an opportunity to inspect the type of this species. From Westwood's description alone I had failed to identify it, and had redescribed it.

Family REDUVIIDÆ.

Head more or less elongate, mobile; eyes usually well separated from the anterior margin of the pronotum, except in the Nabidinæ, in several genera of which the head is immersed to the eyes; rostrum usually stout, bent or curved at base so that in repose it does not lie against the under surface of the head *; the rostrum is three-jointed, except in the subfamily Nabidinæ, in which it consists of four joints.

Dr. Sharp writing in 1899 estimated that upwards of 2000 species were then known, and, as he remarks, their "habits seem to be chiefly of a predaceous nature, the creatures drawing their nutriment from the animal rather than from the vegetable kingdom, and their chief prey being in all probability other kinds of insects." Mr. R. M. Dixon of Bombay, however, who has paid considerable attention to these Rhynchota in his district, where he states they are usually nocturnal in habits, writes thus to me:—"They feed chiefly on the mucilaginous juices of plants. The sharp needle-like rostrum of the insect seems to fulfil a very important bionomic function. It generally pierces the inner bark of a plant and discharges into the wound an acrid poisonous fluid, which rarefies the mucilaginous sap and helps the setæ to suck the juice with ease and convenience, evidently doing no harm to the plant, but, on the contrary, promoting the exudation of the valuable sap. Hence there is reason to believe that the gums, resins, and other resinous vegetable products of commercial value depend largely on the punctures made by the Reduviids. The blood-sucking propensities of some of the species are, I believe, due to a habit acquired probably for purposes of self-defence."

The eggs of some species of this family bear a peculiar operculum, and afford a subject for special investigation.

Synopsis of Subfamilies.

1. Rostrum three-jointed.
    A. Anterior coxæ much elongated, reaching or passing apex of head .... *Emesinæ.*
    B. Anterior coxæ not more than twice or three times longer than broad.
        a. Ocelli absent.
            a. Body pilose or sericeous; antenniferous tubercles not prominent; first joint of antennæ long and slender; pronotum not transverse. *Saicinæ.*

* The genus *Linshcosteus* (Acanthaspidinæ) is an exception to this rule.

b. Body tomentose; antenniferous tubercles laterally obliquely prominent; first joint of antennæ incrassate; pronotum transverse........... *Tribelocephalinæ.*

b. Ocelli present.

a. Hemelytra, when complete, with the exterior area of membrane longer than the interior area; scutellum of moderate size, not very short.

a'. Hemelytra without a quadrangular areolet or cell at interior area of corium, near base of membrane.

*a*². Hemelytra with a discoidal areolet or cell somewhat sexangular and touching base of membrane, or largely triangular .... *Stenopodinæ.*

*b*². Hemelytra without a discoidal areolet or cell.

*a*³. Scutellum with its apex triangular or subtriangular.

*a*⁴. Pronotum constricted before or near middle.

*a*⁵. Anterior tarsi two-jointed .... *Salyavatinæ.*

*b*⁵. Anterior tarsi three-jointed .... *Acanthaspidinæ.*

*b*⁴. Pronotum constricted behind middle .... *Piratinæ.*

*b*³. Scutellum with its apex broad and two or three-spined .. *Ectrichodiinæ.*

b'. Hemelytra with a quadrangular areolet or cell at interior area of corium near base of membrane.

*a*². First joint of rostrum short, second joint long; space between eyes rarely transverse, generally as long as broad .... *Apiomerinæ.*

*b*². First joint of rostrum rarely very short, generally elongate; space between the eyes transverse .... *Harpactorinæ.*

Hemelytra always complete; membrane very large, longly extending beyond abdominal apex, its exterior area shorter than interior area; antennæ and legs longly setose; scutellum short, transverse, obtuse. *Holoptilinæ.*

2. Rostrum four-jointed .... *Nabidinæ.*

Subfamily I. HOLOPTILINÆ.

Holoptilina, *Stål, En. Hem.* iv, p. 3 (1874).

Ocelli present; hemelytra complete; membrane very large, extending far beyond the abdominal apex; antennæ and legs longly setose or pilose; abdomen short, rounded on each side; legs unarmed; anterior femora not incrassated.

A small subfamily at present containing about eight genera, none of which occur in the Nearctic or Neotropical Regions; three are peculiar to Australia, and two are found in this fauna.

Synopsis of Genera.

A. Exterior area of membrane with several posterior transverse veins; head transverse, posteriorly not or obsoletely tuberculous; antennæ and legs densely setose .... PTILOCERUS, p. 198.

B. Exterior area of membrane without or with very obsolete transverse veins; head not transverse, posteriorly distinctly tuberculous; antennæ and legs less distinctly setose .... HOLOPTILUS, p. 199.

Genus PTILOCERUS.

Ptilocerus, *Gray, Zool. Misc.* p. 34 (1831); *Stål, En. Hem.* iv, p. 5 (1874).

Holoptilus, subg. Ptilocnemus, *Westw. Tr. E. S.* ii, p. 252 (1840).

Maotys, *Amy. & Serv. Hém.* p. 318 (1843).

Type, *P. fuscus*, Gray.

Distribution. Oriental Region.

Body ovate; head broad, transverse, not posteriorly tuberculate; ocelli wide apart; rostrum with the first joint very long; antennæ with the first joint very short, second very long and strongly and longly setose, third very small, fourth nearly twice as long as third; hemelytra very much longer than the abdomen, coriaceous portion very short, membranous portion very long, with several short posterior transverse veins forming somewhat well-defined cells; legs strongly setose.

994. **Ptilocerus fuscus**, *Gray, Zool. Misc.* p. 34 (1831); *Westw.* (Ptilocnemus), *Tr. E. S.* ii, p. 252, pl. xxii, f. 8 (1840); *id. Thesaur. Entom.* p. 193, pl. xxxvi, f. 14 (1874).

Palely fuscous-rufescent; hemelytra pale at base, membrane more rufescent; second joint of antennæ very long, third minute,

fourth twice as long as third; hemelytra with four longitudinal and inner transverse veins which form four apical cells; linear oval white spots between the veins; posterior tibiæ longly luteous-rufescent, setose.

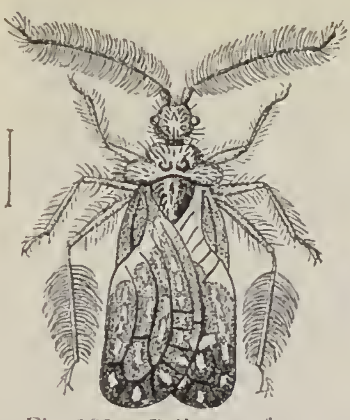

Fig. 139.—*Ptilocerus fuscus.*

Length including hemelytra $8\frac{1}{2}$ millim.

Hab. Nepal (*Hardwicke*).—Java (*Horsfield*).

Considerable confusion attaches to the synonymy of this species. Amyot and Serville's description and figure (Hém. p. 318, pl. vi, f. 4, 1843) do not seem to apply. I have not seen the species, but reproduce Westwood's description and figure.

Genus HOLOPTILUS.

Holoptilus, *Lepel. & Serv. Encycl. Méth.* x, p. 280 (1825); *Lap. Ess. Hém.* pp. 7 & 50 (1832); *Amy. & Serv. Hém.* p. 320 (1843); *Stål, Hem. Afr.* iii, p. 45 (1865); *id. En. Hem.* iv, p. 5 (1874).
Lasiocera, *Lap. Ess. Hém.* p. 47 (1832).

Type, *H. ursus*, Lepel. & Serv., a South-African species.

Distribution. Southern Palæarctic, Ethiopian, and Oriental Regions.

Body ovate; head oval, elevated behind eyes; ocelli wide apart; rostrum with the first joint nearly twice as long as the apical joints together; antennæ with the first joint short, second very long and longly setose, third and fourth short; hemelytra ample, twice or more than twice as long as the abdomen; coriaceous portion short, triareolate, membranous portion very large; legs short, longly setose; tarsi two-jointed.

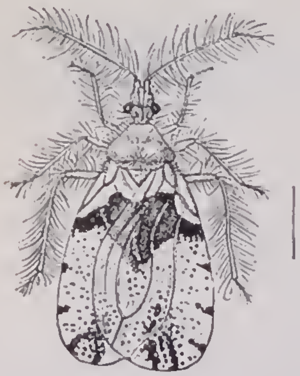

Fig. 140.
Holoptilus melanospilus.

995. **Holoptilus melanospilus**, *Walk.* (Maotys) *Cat. Het.* vii, p. 88 (1873); *Leth. & Sev.* (Ptilocerus) *Cat. Gén. Hém.* t. iii, p. 93 (1896); *Dist. A. M. N. H.* (7) x, p. 181 (1902).

Head, antennæ, pronotum, scutellum, rostrum, body beneath and legs golden-yellow; hemelytra creamy-white, the veins and basal angles yellow, a larger transverse fascia widest interiorly before middle, and marginal and apical spots dark fuscous-brown; legs and antennæ very longly setose; margins of pronotum and basal margins of hemelytra setose.

Length to apex of hemelytra 8 millim.

Hab. "Hindostan" (*Brit. Mus.*). Ceylon: Puttalam (*Green*).

996. **Holoptilus viverra,** *Walk.* (Maotys) *Cat. Het.* vii, p. 88 (1873); *Westw. Thesaurus Ent.* p. 192, pl. xxxvi, f. 11 (1874).

Head, antennæ, pronotum, scutellum, basal area of hemelytra, body beneath, rostrum and legs light ochraceous; hemelytra yellowish-white, a medial irregular transverse fascia, followed by four transverse lateral marginal spots, of which the first is connected with the transverse fascia, and the third and fourth with a large subapical spot, purplish-black; legs, antennæ and pronotum longly setose.

Length to apex of hemelytra 2 millim.

Hab. "Hindostan" (*Capt. Boys, Brit. & Oxford Mus.*).

997. **Holoptilus fasciatus,** *Reut. Act. Soc. Sc. Fenn.* xii, p. 272 (1881).

Antennæ, legs and veins to diaphanous hemelytra flavous-ferrugineous or fulvous; longly concolorously setose; abdomen piceous, beneath at middle and apex flavo-ferrugineous; hemelytra twice the length of abdomen, whitish hyaline, basal third part, four transverse marginal anterior striæ, and a large apical spot which almost passes the interior areola subsericeous-black.

Length with hemelytra $6\frac{4}{5}$ millim.

Hab. Bengal; Calcutta (*fide Reuter*).

I have not seen this species.

998. **Holoptilus burmanicus,** *Westw. Thesaurus Ent.* p. 192, pl. xxxvi, f. 9 (1874).

Fulvous-brown; hemelytra with the basal area whitish with the veins fulvous, apical area, more than half, fuscous-brown, the veins and some irregular suffusions fulvous, and with piceous spots on its margin and at apical angle; legs, antennæ, margins of pronotum and basal margin of hemelytra longly brownly setose.

Length excluding hemelytra 5 millim.

Hab. Burma (*Oxford Mus.*).

I have not seen this species, the description of which is founded on Westwood's short comparative diagnosis and his figure. He states that the species is also contained in the British Museum, but it is not to be found in that collection at the present time.

Subfamily II. EMESINÆ.

Emesina, *Stål, En. Hem.* iv, p. 4 (1874).

This subfamily of the Reduviidæ is easily recognized by the elongate anterior coxæ, and general raptorial appearance of the anterior legs, which have a considerable resemblance to those of the orthopterous family Mantidæ. The species are either winged or

apterous, and some of the division *Emesaria* resemble the so-called "walking-stick" insects of the orthopterous family Phasmidæ.

The Emesinæ are almost universally distributed and are very predaceous insects. Their anterior legs are particularly developed and adapted for capturing and holding their prey, the greatly elongated coxæ giving them no inconsiderable resemblance to small or undeveloped species of Mantidæ. Some species of the *Stenolæmaria* also somewhat resemble members of the Tipulidæ (*Diptera*).

In the genus *Plœaria*, found in this fauna, one species, *P. domestica*, Scop. (=*marginatus*, Hein.), has been described by Heineken as being so predaceous, that a female killed and sucked a companion of her own sex, her own mate, and, after only a few days' fast, her own young, and sucked her own eggs!

Division *STENOLÆMARIA*.

Ploiariaria, *Stål* (part.), *En. Hem.* iv, p. 92 (1874).

Anterior femora spined beneath for their whole length, a little or considerably longer than the tibiæ; anterior tarsi short, not longer or a little longer than the posterior tarsi; hemelytra present or absent, when present, so far as known, ornamented with fuscous; scutellum and postscutellum frequently spined at apices.

Four genera found in British India are now included in this division.

Synopsis of Genera.

A. Hemelytra present and fully developed.
  a. Scutellum spined.
    a. Thorax medially attenuated and cylindrical .... STENOLÆMUS, p. 203.
    b. Thorax with the lateral margins almost continuous .... PLOIARIOLA, p. 201.
  b. Scutellum without spines .... MYIOPHANES, p. 204.
B. Hemelytra absent .... EUGUBINUS, p. 206.

Genus **PLOIARIOLA**.

Ploiariola, *Reut. Act. Soc. Sc. Fenn.* xv, p. 711 (1888).
Ploiaria, *Scop.* (part.) *Del. Fl. et Faun. Insubr.* iii, p. 51 (1787); *Dohrn, Linn. Ent.* xiv, p. 214 (1860); *Stål, En. Hem.* iv, p. 92 (1874); *Saund. Hem. Het. Brit. Islds.* p. 158 (1892).
Gerris, *Fabr.* (part.) *Ent. Syst.* iv, p. 187 (1794).
Plœaria, *Amy. & Serv. Hém.* p. 396 (1843); *Fieber, Eur. Hem.* pp. 41, 149 (1861); *Reut. Öfv. Vet.-Ak. Förh.* 1872, no. 6, p. 65; *nec Scop.* (1786).

? Ploiariodes, *Buch. White, A. M. N. H.* (5) vii, p. 58 (1881); *Champ. Biol. Centr.-Am., Rhynch.* ii, p. 163 (1898).

Type, *P. vagabunda*, Linn., a European species.

Distribution. Nearctic, Palæarctic, and Oriental Regions.

Elongate, with very long antennæ and legs; head rounded and subglobose behind eyes, ocelli absent, vertex with a strong transverse impression; antenniferous tubercles strongly developed and prominent; antennæ very long, first and second joints subequal in length, third and fourth together about half as long as second; rostrum scarcely longer than head; pronotum widened posteriorly, the lateral margins nearly straight and carinate; scutellum with two spines, one at base, the other at apex, below the last is another, which according to Saunders is on the basal segment of the abdomen, and Puton says it is "sur le scutum du métathorax"; hemelytra submembranous, membrane large, apical angle of corium long, acute; legs long, slender; coxæ elongate, those of the anterior legs produced beyond the apex of the head; anterior femora moderately incrassate.

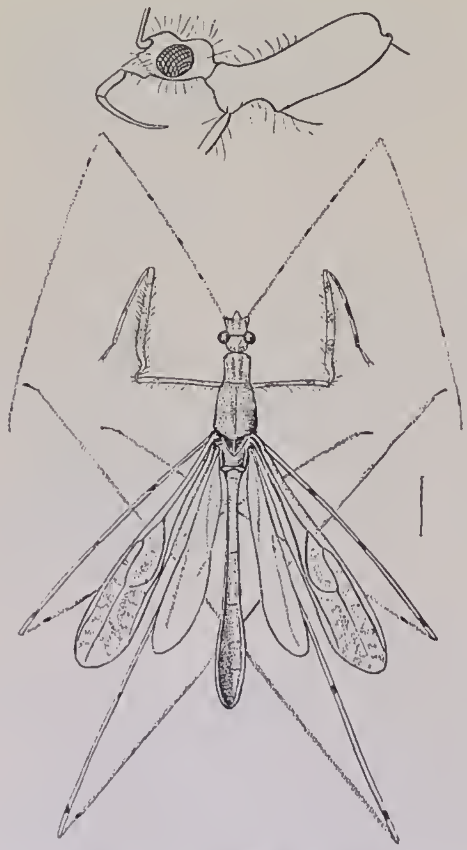

Fig. 141.—*Ploiariola culata.*

999. **Ploiariola oculata,** *Reut.* (Ploearia) *Act. Soc. Sc. Fenn.* xii, p. 338 (1881).

Head, anterior lobe of pronotum, abdomen beneath and connexivum fuscous; abdomen above and scutellum ochraceous; posterior lobe of pronotum pale luteous; rostrum, antennæ and legs very pale luteous, with numerous fuscous annulations.

Length $5\frac{1}{2}$ millim.

Hab. Ceylon (*Nietner*); Peradeniya (*Green*).

Mr. G. Green informs me that this species captures its prey in the same manner as the Mantis does; when not on the move it slowly raises and depresses its body, its long legs seeming to act like springs. Its food consists of minute insects. Mr. Green kept specimens in confinement, and found that they were able to catch insects of the size of gnats, &c.

Genus STENOLÆMUS.

Stenolemus, *Sign. Ann. Soc. Ent. Fr.* 1858, p. 251; *Dohrn, Linn. Ent.* xiv, p. 214 (1860).
Stenolæmus, *Champ. Biol. Centr.-Am., Rhynch.* ii, p. 163 (1898).

Type, *S. spiniventris*, Sign., from Mexico.

Distribution. Neotropical, Palæarctic, Ethiopian, and Oriental Regions.

Head small, rounded posteriorly, profoundly impressed between the eyes; rostrum reaching but not passing the anterior coxæ; antennæ long, first joint somewhat stout and longly hirsute, remaining joints more slender, less longly hirsute, first and second joints longest; thorax long, sharply divided into three parts, the anterior portion globose, the posterior portion somewhat tuberculous, those portions united by a central narrow cylindrical area; anterior coxæ very long, about half the length of femora, which are armed beneath with a series of long fine spines; posterior legs slender, very longly hirsute; hemelytra long, membranous, the apical margin distinctly or indistinctly concave; scutellum armed with two spines, one discal, the other apical.

1000. **Stenolæmus crassirostris**, *Stål, Öfv. Vet.-Ak. Förh.* 1870 p. 702.

Creamy-white, longly pilose, antennæ and legs annulated with fuscous; hemelytra varied with fuscous; middle cylindrical portion of the thorax shorter than either of the other thoracic segments; scutellar spines straight; hemelytra with three chocolate-brown irregularly shaped spots—one on disk near lateral margin, one near apex of inner margin, the other more or less broken near apical margin.

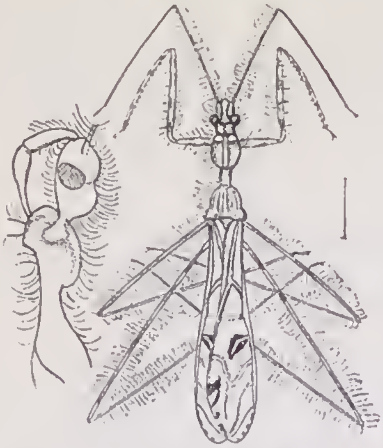

Fig. 142.—*Stenolæmus crassirostris.*

Length 7 millim.

Hab. Ceylon; Peradeniya (*Green*).—Philippines (*Semper*).

I have to thank Dr. Sjöstedt, of the Stockholm Museum, for lending me a cotype of Stål's species with which to compare the Ceylonese specimen.

1001. **Stenolæmus greeni**, *Dist. A. M. N. H.* (7) xi, p. 256 (1903

Brownish-ochraceous; three pale striæ (one central and two lateral) to globose portion of pronotum, pedunculate portion and posterior margin of pronotum pale ochraceous; legs luteous, anterior legs considerably but obscurely annulated with pale brownish, intermediate and posterior femora with several brownish

annulations, intermediate tibiæ with a subbasal annulation, posterior tibiæ mutilated; antennæ annulated with brownish; tegmina creamy-white, with large brown spots, of which the two largest are discal, one apical and angular, a smaller spot at inner angle and a few very small and nebulous on apical area; pedunculate portion of pronotum a little shorter than either of remaining portions; posterior portion tricarinate.

Length 8 millim.

Hab. "India" (*Brit. Mus.*). Ceylon (*Green*).

Allied to the preceding species (*S. crassirostris*, Stål), but with the pedunculated portion of the pronotum considerably longer.

1002. **Stenolæmus atkinsoni,** *Dist. A. M. N. H.* (7) xi, p. 256 (1903).

Creamy-white, longly pilose; antennæ with three broad brownish annulations to first and second joints; head with the eyes piceous and with a pale brownish lateral streak behind eyes, also two central lines of the same colour on the pedunculated portion of pronotum; basal area of pronotum, three annulations to anterior femora, five annulations to intermediate and posterior femora, three annulations to anterior tibiæ, a subbasal annulation to intermediate and posterior tibiæ, coxal spots and broken fasciæ to abdomen brownish-ochraceous; tegmina tinted with brownish about the veins and with three distinct brown spots—one smallest and discal before centre, one elongate discal with a pale central vein beyond centre, the third apical, also with a pale vein; pedunculated portion of pronotum long, about as long as each of the remaining portions; pronotum with a distinct central posterior carination, the lateral angles obtusely tuberculate.

Length 11 millim.

Hab. India; North-West Provinces (*Horne*, *Brit. Mus.*).

Genus **MYIOPHANES.**

Myiophanes, *Reut. Act. Soc. Sc. Fenn.* xii, p. 337 (1881); *Rev. d'Ent.* vi, p. 166 (1887).

Type, *M. tipulina*, Reut., from China and Japan.

Distribution. Eastern Palæarctic, Oriental, and Australasian Regions.

This genus may be here primarily identified by the pronotum, which in structure has the anterior lobe strongly constricted posteriorly, but not pedunculate; the tegmina are complete, passing the apex of the abdomen, the part representing the membrane very long and exhibiting four more or less large perfect cells; the intermediate and posterior legs are very longly pilose on each side; the rostrum about reaches the anterior coxæ, the first joint and basal area of second joint robust and incrassate, these joints almost subequal in length, the first a little longest; legs long and slender, anterior femora somewhat strongly spined beneath.

1003. **Myiophanes greeni**, sp. n.

Creamy-white; head (excluding extreme apex), antennæ (excluding basal tubercles), a central oblique spot on each side of anterior pronotal lobe, posterior lobe of pronotum, scutellum, two broad annulations to anterior coxæ, three broad annulations to anterior femora, anterior tibiæ (excluding base), intermediate and posterior legs, meso- and metasterna, and five broad transverse annulations to abdomen dark fuscous; apex of first joint of antennæ, two elongate spots on anterior area of posterior pronotal lobe, apices of intermediate and posterior femora and bases of tibiæ belonging to these legs, and anterior margin of prosternum creamy-white; hemelytra with the basal area or corium creamy-white, the membranal area pale fuscous, the venation robust and a little darker; antennæ slender, pilose, first and second joints subequal in length; intermediate tibiæ longer than the femora, posterior tibiæ much longer than the femora; intermediate and posterior legs longly pilose on each side.

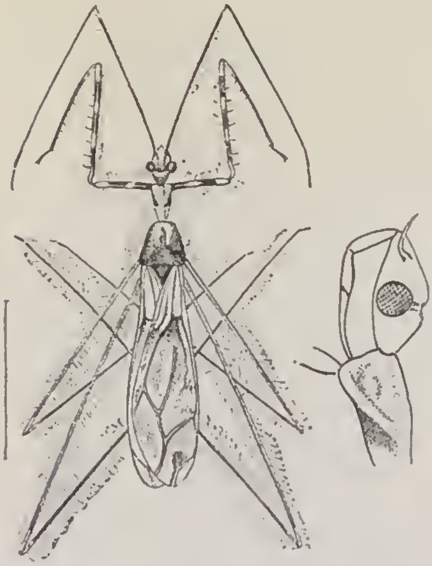

Fig. 143.—*Myiophanes greeni.*

Length to apex of abdomen $15\frac{1}{2}$, to apex of hemelytra $16\frac{1}{2}$ millim.

Hab. Ceylon; Puttalam (*Green*).

Fig. 144.—*Myiophanes karenia.*

1004. **Myiophanes karenia**, sp. n.

Very pale ochraceous; antennæ, base of second joint of rostrum, anterior femora and tibiæ, intermediate and posterior legs, head between eyes, venation of hemelytra, and lateral margins of abdomen pale fuscous; two oblique marginal fasciæ on each side of anterior pronotal lobe, a submarginal fascia to posterior pronotal lobe, apices of femora, and bases of tibiæ creamy-white; antennæ concolorous, finely pilose, first and second joints subequal; intermediate and posterior legs longly pilose on each side,

the femora a little darker before the pale apices; intermediate and posterior femora distinctly slightly curved.

Length to apex of abdomen 13, to apex of hemelytra 14 millim.

Hab. Burma; Rangoon (*Coll. Dist.*).

Genus EUGUBINUS.

Eugubinus, *Dist. A. M. N. H.* (7) xii, p. 253 (1903).

Type, *E. araneus*, Dist.

Distribution. British India.

Elongate, apterous; head globose on disk, anteocular area shorter than postocular, base constricted and somewhat pedunculate at base, eyes large and prominent; rostrum reaching the anterior coxæ, first and second joints incrassated and almost subequal in length, basal joint strongly curved, second joint passing eyes; antenniferous tubercles long and slender; antennæ slender, first joint about as long as head and pronotum together; pronotum with the anterior lobe shorter than the posterior, broadest and truncate anteriorly, attenuated posteriorly, but not pedunculate, posterior lobe elongate, margins subparallel; anterior coxæ shorter than anterior tibiæ, which are about one-third shorter than anterior femora, the last finely spined for about their entire length with a prominent spine near base, posterior femora passing abdominal apex; posterior tibiæ considerably longer than the femora; anterior tarsi short, rigid, two-jointed, basal joint shortest.

1005. **Eugubinus araneus**, *Dist. A. M. N. H.* (7) xii, p. 253 (1903).

Pale obscure ochraceous; head (excluding apex) black; pronotum

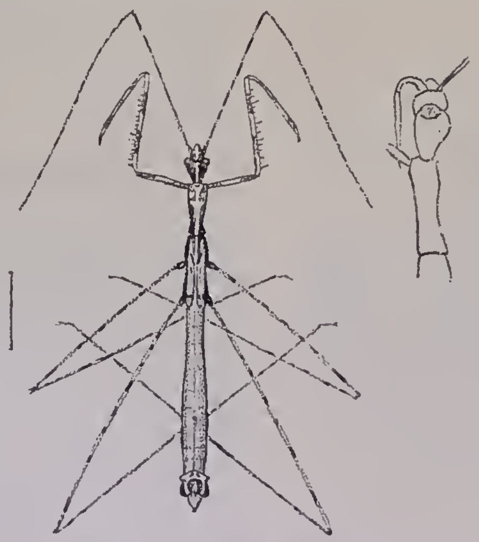

Fig. 145.—*Eugubinus araneus.*

with brownish marks and suffusions; antennæ, legs and rostrum pale creamy-white, somewhat thickly annulated with brown,

intermediate and posterior coxæ, trochanters, and spots to apical segment of abdomen piceous; anterior coxæ and femora each with two broad brown annulations; anterior tibiæ with three annulations, apex of anterior tarsi and the intermediate and posterior tarsi fuscous; rostrum with the second joint annulated with brown; antennæ, intermediate and posterior legs much and closely annulated with brown.

Length $8\frac{1}{2}$ millim.

Hab. Uran, near Bombay (*Aitken*).

Found living in nest of a spider (*Theridium* sp.).

Division *LEISTARCHARIA* *.

Leistareharia, *Stål* (part.), *En. Hem.* iv, p. 92 (1874).

Anterior femora spined beneath for their whole length; anterior tarsi long, not or a very little shorter than the tibiæ; hemelytra either not or sometimes very strongly marked with fuscous.

Synopsis of Genera.

A. Species winged.
  a. Pronotum more than twice the length of head; anterior tibiæ and tarsi united almost the length of femora .... Bagauda, p. 207.
  b. Pronotum less than twice the length of head: anterior tibiæ and tarsi united considerably shorter than femora .... Luteva, p. 208.
B. Species apterous .... Plœaria, p. 209.

Genus BAGAUDA.

Bagauda, *Bergr. Rev. d'Ent.* xxii, p. 12 (1903).

Type, *B. avidus*, Bergr.

Distribution. Oriental Region.

Head suboval, above and beneath convex, subequal in width to apex of pronotum, narrower in front of eyes than behind; rostrum with the first joint reaching middle of anteocular portion of head, second subequal to first, third longer than second; first joint of antennæ three times longer than pronotum; pronotum more than twice the length of head, above mesonotum outwardly produced, base considerably wider than apex, medially strongly constricted, basal margin sinuate; scutellum subtriangular; hemelytra passing abdominal apex, exterior cell of membrane longer than interior cell; anterior femora moderately incrassated, beneath finely spinose, basal spines most prominent; anterior tibiæ and tarsi united about as long as femora, the tarsus single-jointed, posterior femora longly passing the abdominal apex.

* Founded on the genus *Leistarches*, Dohrn, represented by an American species.

1006. **Bagauda avidus**, *Bergr. Rev. d'Ent.* xxii, p. 13 (1903).

Brownish-ochraceous, opaque, beneath paler; antennæ piceous, posterior femora fuscous; apices of intermediate and posterior femora and bases of intermediate and posterior tibiæ creamy-white, the fine spines of the anterior femora black; second joint of antennæ distinctly shorter than first; anterior coxæ more than half as long again as head, posterior angles of pronotum distinctly nodulose.

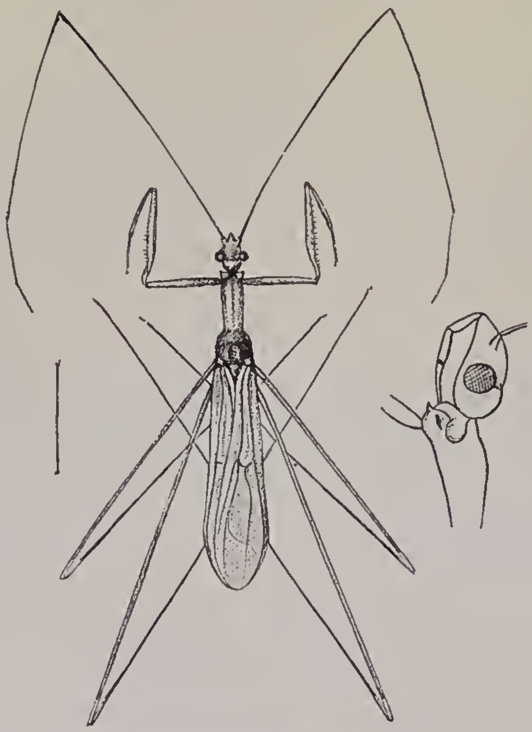

Fig. 146.—*Bagauda avidus.*

Length ♂ & ♀, excluding hemelytra, 12 millim.

Hab. Bombay (*Wroughton*). Ceylon (*Green*).

Dr. Bergroth has obligingly submitted a cotype of his species to me, for comparison with my Ceylonese specimen.

Genus LUTEVA.

Luteva, *Dohrn, Linn. Ent.* xiv, pp. 213 & 242 (1860); *Stål, En. Hem.* ii, p. 126 (1872); *id. op. cit.* iv, p. 93 (1874); *Champ. Biol. Centr.-Am., Rhynch.* ii, p. 163 (1898).

Type, *L. concolor*, Dohrn, from the Philippines.

Distribution. Nearctic, Neotropical, and Oriental Regions; also recorded from Hawaii.

Body subelongate; head anteriorly cylindrical, broad posteriorly, and somewhat attenuated eyes moderate in size; rostrum with

the first and second joints very slightly incrassated; anterior trochanters armed with one or two slender spines or setæ; body winged, the hemelytra reaching the abdominal apex; anterior femora thickly spinose beneath for whole length; anterior tarsi uni- or biungulate.

1007. **Luteva feana**, *Dist. Entomologist,* xxxvi, p. 1 (1903).

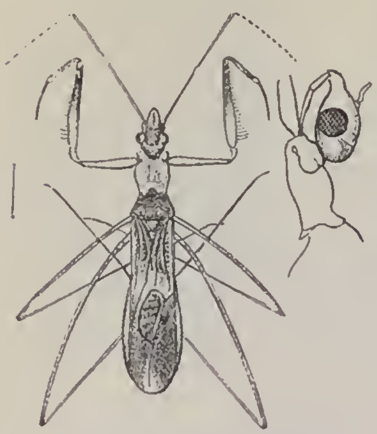

Fig. 147.—*Luteva feana.*

Piceous, anterior lobe and anterior margin of posterior lobe of pronotum, body beneath (excluding apex of abdomen), coxæ, bases and apices of anterior femora and tibiæ, and bases of intermediate and posterior femora luteous; a large spot on corium at base of membrane and a small apical spot to membrane cretaceous-white. Anterior coxæ considerably passing apex of head; anterior lobe of pronotum glabrous, posterior lobe punctate; basal joint of antennæ luteous at base, about as long as abdomen; anterior femora thickly and finely spinous beneath.

Length 5 millim.

Hab. Burma; Bhamo, Palon (*Fea*).

Genus **PLŒARIA.**

Ploiaria, *Scop. Del. Flor. et Faun. Insubr.* i, p. 60 (1786); *Reut. Act. Soc. Sc. Fenn.* xv, p. 713 (1888); *Champ. Biol. Centr.-Am., Rhynch.* ii, p. 163 (1898).

Cerascopus, *Heinek. Zool. Journ.* v, p. 36 (1830); *Stål, En. Hem.* ii, p. 126 (1872), & iv, p. 93 (1874).

Emesodema, *Spin. Ess. Hém.* p. 87 (1840); *Dohrn, Linn. Ent.* xiv, pp. 213, 246 (1860).

Type, *P. domestica*, Scop., a Palæarctic species.

Distribution. Widely distributed, already recorded from the Palæarctic, Nearctic, Neotropical, Oriental, and Australasian Regions.

Differing from the preceding genus (*Luteva*) by having the body completely apterous; the anterior trochanters are armed with one or two long acute spines; the pronotum is about as long as the mesonotum; eyes small.

1008. **Plœaria greeni**, sp. n.

Head, pronotum, anterior legs, sternum, rostrum and coxæ pale ochraceous; antennæ, mesonotum, and intermediate and posterior legs brownish-ochraceous; abdomen fuscous; apices of anterior

femora pale fuscous; first joint of antennæ nearly as long as body; anterior tibiæ and tarsi together nearly as long as femora, anterior

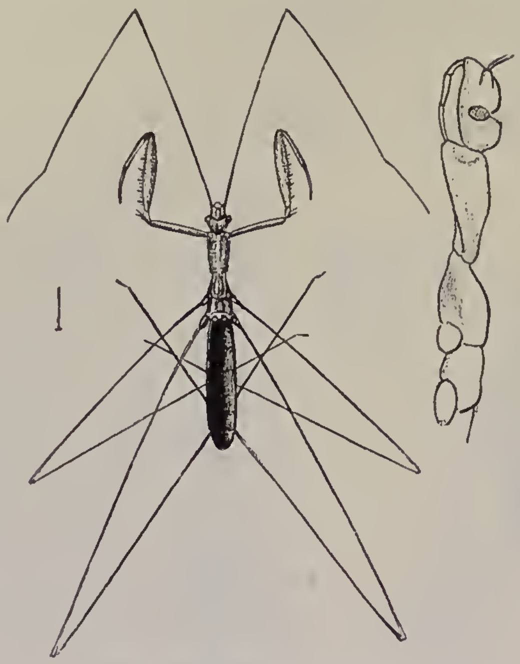

Fig. 148.—*Plœaria greeni.*

tarsi almost as long as tibiæ; apices of the posterior femora creamy-white.

Length 5½ millim.

Hab. Ceylon; Peradeniya (*Green*).

Division *EMESARIA.*

Emesaria, *Stål* (part.), *En. Hem.* iv, p. 93 (1874).

Anterior femora spined beneath only from about or near middle; head much narrowed at base; posterior femora either almost reaching or passing abdominal apex; legs very long.

Synopsis of Genera.

A. Anterior tarsi consisting of one joint.
  a. Head and thorax granulate; first joint of rostrum short, much shorter than anteocular portion of head.
    a. Anterior tarsi shorter than tibiæ .... GHILIANELLA, p. 211.
    b. Anterior tarsi longer than tibiæ .... GOMESIUS, p. 212.
  b. Head and thorax levigate; first joint of rostrum longer than anteocular portion of head .... ISCHNOBÆNA, p. 213.
B. Anterior tarsi three-jointed .... GARDENA, p. 214.

Genus GHILIANELLA.

Ghilianella, *Spin. Gen. d'Ins. Artr.* p. 142 (1852) ; *Dohrn, Linn. Ent.* xiv, p. 236 (1860) ; *Stål, Öfv. Vet.-Ak. Förh.* 1862, p. 504 ; *id. op. cit.* 1870, p. 704 note ; *id. Hem. Afr.* iii, p. 162 (1865) ; *En. Hem.* ii, pp. 125 & 126 (1872) ; *Champ. Biol. Centr.-Am., Rhynch.* ii, p. 163 (1898).

Emesa, *Burm. Handb.* ii, p. 223 (1835) ; *Dohrn* (part.), *Linn. Ent.* xiv, p. 236 (1860).

Type, *G. filiventris*, Spin., a Neotropical species.

Distribution. Neotropical, Ethiopian, and Oriental Regions.

Anterior tarsi compressed, claw-like, the joints fused into one ; completely apterous ; mesothorax anteriorly compressed and narrowed ; anterior femora spinose from about the middle, the first spine very long ; head and thorax granulate.

According to Pascoe, the peculiarly linear form of the species of this genus allows the young larvæ to be carried about by the mother, the slender abdomen of the larva being curled around the thorax of the parent.

1009. **Ghilianella phasma**, sp. n.

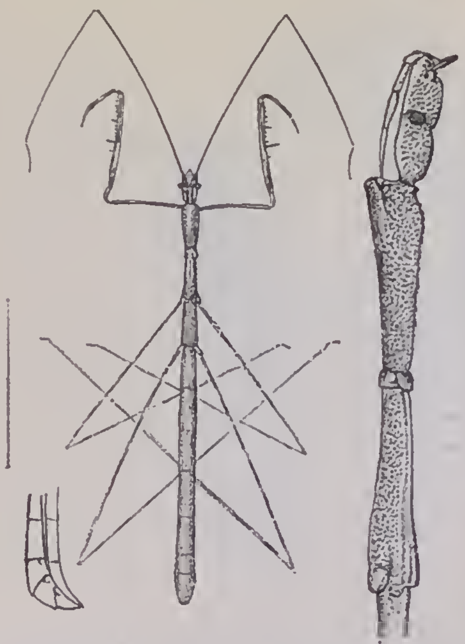

Fig. 149.—*Ghilianella phasma.*

Piceous-brown, opaque ; antennæ, three longitudinal fasciæ to postocular area of head, two of which appear for a short distance on apex of pronotum, and the legs brownish-ochraceous ; apex of first joint of antennæ piceous ; legs much annulated with very pale luteous, the annulations to the intermediate and posterior tibiæ being confined to the basal areas ; head and thorax finely granulate ; meso- and metanotum and abdomen above with a fine central longitudinal sulcation ; prothorax a little longer than meso- or metathorax ; first joint of antennæ a little shorter than abdomen.

Length 17 millim.

Hab. Burma ; Karennee (*Coll. Dist.*).

Genus GOMESIUS, nov.

Type, *G. predatorius*, Dist.

Distribution. Ceylon.

Elongate; wings rudimentary; legs very long; rostrum reaching anterior coxæ, first joint short, not nearly reaching eyes, second about twice as long as first; antennæ with the first joint very slightly curved, longer than second; anterior coxæ long but shorter than femora; anterior femora a little sinuate beneath, finely spinous from apex to about one-third from base, where there is a very long prominent spine (in the typical specimen the right femur has two spines as shown in figure); anterior tarsi half as long again as tibiæ, compressed, claw-like, the joints fused into one; apparently two apical claws, one distinct, the other subobsolete; head and thorax granulate, prothorax long with two medial tuberculous spines; hemelytra rudimentary, extending only to about one-third of abdomen.

1010. Gomesius predatorius, sp. n.

Fuscous; antennæ much annulated with ochraceous; rostrum biannulated with ochraceous; anterior femora much suffused with ochraceous, anterior tibiæ with a subbasal annulation, and tarsi

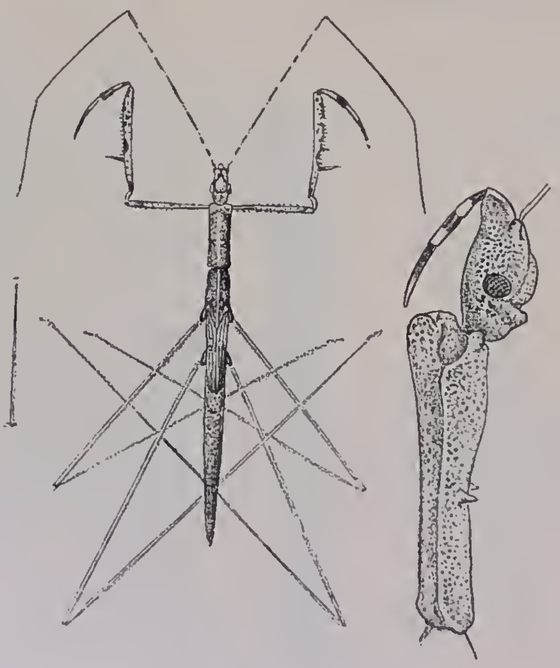

Fig. 150.—*Gomesius predatorius.*

with a basal annulation, ochraceous; intermediate and posterior legs ochraceous, the femora above and tibiæ near base fuscously annulate, apices of tibiæ and the tarsi fuscous.

Length 15 millim.

Hab. Ceylon; Kandy (*Green*).

Genus ISCHNOBÆNA.

Ischnobæna, *Stål, Öfv. Vet.-Ak. Förh.* 1870, p. 703; *id. En. Hem.* iv, p. 93 (1874).

Type, *I. macerrima*, Stål.

Distribution. Oriental and Ethiopian Regions.

Body slender, cylindrical, long, apterous: head oblong, ante- and postocular parts of nearly equal length; antennæ very long, first joint only a little shorter than half the length of body; rostrum with the first joint long, basal joint slightly passing region of eyes; anterior tarsi of one joint; thorax very long, only about one-quarter shorter than abdomen; anterior femora more than twice as long as the anterior tibiæ and tarsi together and densely spinous beneath; posterior femora variable in length, sometimes not quite reaching, sometimes passing, the abdominal apex.

A. *Posterior femora slightly passing the abdominal apex.*

1011. **Ischnobæna macerrima**, *Stål, Öfv. Vet.-Ak. Förh.* 1870, p. 703, pl. viii, ff. 15 & 15 *a*.

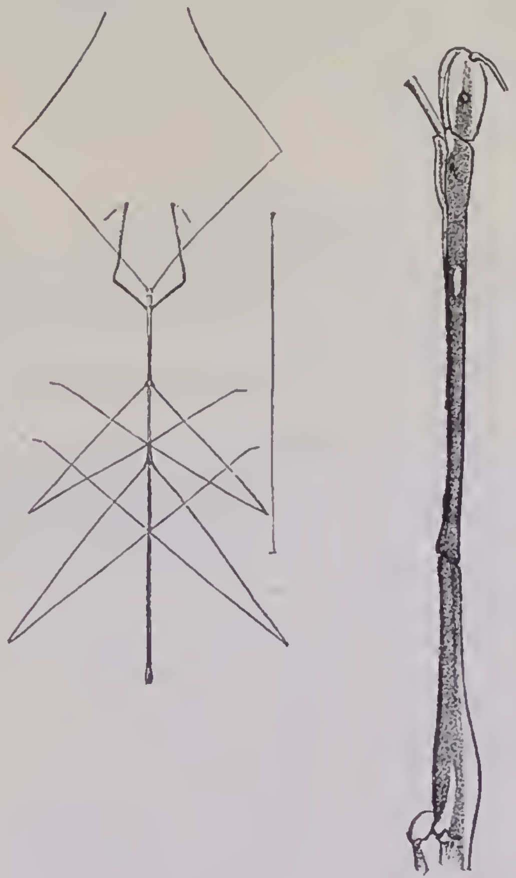

Fig. 151.—*Ischnobæna macerrima.*

Piceous; pronotum near middle somewhat tawny; head, rostrum, apex of pronotum, apex of abdomen, base of anterior

coxæ, the intermediate and posterior coxæ and bases of femora brownish-ochraceous; annulation to anterior femora, a broad central annulation to anterior tibiæ, and two or three small annulations to intermediate and posterior tibiæ, before the middle, obscure pale stramineous.

Length $36\frac{1}{2}$ millim.

Hab. Ceylon (*Green*).—Philippines (*Semper*).

B. *Posterior femora not quite reaching the abdominal apex.*

1012. **Ischnobæna henrici**, *Dohrn* (Emesa), *Linn. Ent.* xiv, pp. 216 & 218 (1860).

Piceous; head, a central line to thorax above and beneath luteous; abdominal segments with a small elongate creamy-white spot; legs and antennæ fuscous-brown, basal joint of antennæ and the intermediate and posterior legs with numerous small creamy-white annulations; anterior tibiæ, coxal spots, and a spot beneath at junction of meso- and metasterna very pale luteous; anterior tibiæ with a basal and apical annulation and apex of tarsi brownish-ochraceous. Posterior femora not reaching abdominal apex.

Length 27 to 32 millim.

Hab. Ceylon (*Green*).

Genus GARDENA.

Gardena, *Dohrn, Linn. Ent.* xiv, p. 214 (1860); *Stål, Öfv. Vet.-Ak. Förh.* 1870, p. 704 note; *id. En. Hem.* iv, p. 93 (1874); *Champ. Biol. Centr.-Amer., Rhynch.* ii, p. 163 (1898).

Type, *G. melinarthrum*, Dohrn.

Distribution. Neotropical, Palæarctic, Oriental, and Australasian Regions.

Body long, slender, cylindrical, head much attenuated and pedunculate at base; rostrum about reaching the anterior coxæ, first and second joints stoutest, third longest; hemelytra either absent, or when present reaching to about half the length of abdomen; anterior femora from middle to apex thickly spined beneath; tarsi three-jointed.

A. *Hemelytra present; first joint of antennæ shorter than abdomen.*

1013. **Gardena bicolor**, sp. n.

Anteocular portion of head, posterior lobe of pronotum, meso- and metasterna, anterior trochanters, intermediate and posterior coxæ and trochanters, and apical area of abdomen beneath piceous; postocular portion of head, hemelytra, and basal area of abdomen beneath brownish piceous; antennæ, rostrum, anterior lobe of pronotum, and legs pale castaneous; apices of intermediate and

posterior femora, and bases of intermediate and posterior tibiæ (excluding a small spot) creamy-white; first joint of antennæ

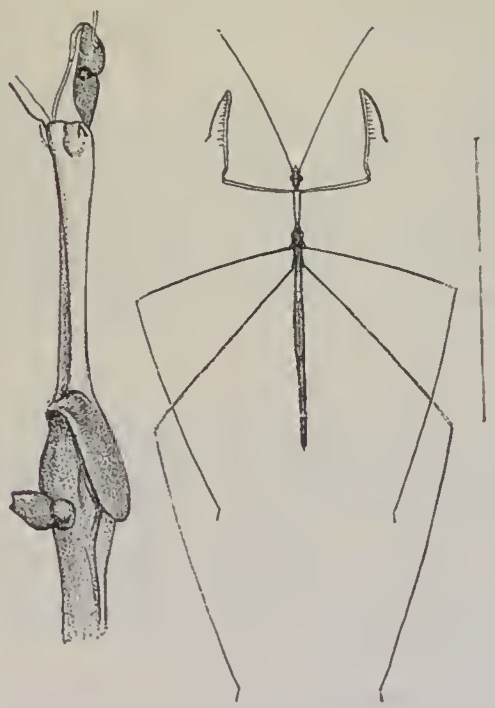

Fig. 152.—*Gardena bicolor.*

shorter than abdomen; hemelytra present, about reaching middle of abdomen.

Length 30 millim.

Hab. Burma; near Rangoon (*Coll. Dist.*).

B. *Apterous; first joint of antennæ about as long as abdomen.*

1014. **Gardena melinarthrum,** *Dohrn, Linn. Ent.* xiv, p. 214 (1860); *id. op. cit.* xv, p. 64 (1863).

Black, shining; head brownish-ochraceous, piceous at base; rostrum ochraceous, darker at base; coxæ, trochanters, and bases of intermediate and posterior femora brownish-ochraceous; apices of intermediate and posterior femora, and bases of intermediate and posterior tibiæ (excluding a small spot) creamy-white; first joint of antennæ about as long as abdomen, posterior femora much shorter than tibiæ, but considerably passing apex of abdomen; hemelytra absent.

Length 20 to 25 millim.

Hab. Ceylon (*Green*).

The following species have not been seen by the writer and probably should be included in the Divison *Emesaria* :—

1015. **Emesa ? invisiblis**, *Dohrn, Linn. Ent.* xiv, pp. 217 & 219, pl. i, f. 7 (1860).

Fuscous, opaque; head flavous with a lateral fulvous vitta; eyes fulvous; prothorax with apical medial guttæ and base of mesothorax obsoletely white; metathorax longer than prothorax, mesothorax smallest; abdominal apex flavous, segments with a single basal flavous spot; legs brown, annulated with flavous, the anterior a little shorter than the thorax; antennæ unicolorous, opaque; rostrum flavous, shining, laterally obsoletely fulvous.

Length 33 millim.

Hab. Ceylon (*fide Dohrn*).

1016. **Emesa filum**, *Fabr.* (Cimex) *Gen.* p. 301 (1776); *id.* (Cimex) *Spec. Ins.* ii, p. 376 (1781); *id.* (Cimex) *Mant.* ii, p. 308 (1787); *id.* (Gerris) *Entom. Syst.* iv, p. 191 (1794); *id.* (Emesa) *Syst. Rhyng.* p. 263 (1803); *Dohrn* (Emesa), *Linn. Ent.* xiv, p. 230 (1860).

"Fuscous, hemelytra abbreviated, legs very long; antennæ as long as body; thorax cylindrical, linearly fuscous; abdomen elongate, cylindrical, fuscous; legs very long, palely annulated."

Hab. "India orientalis."

? *Emesa filum*, Brullé, Hist. Ins. ix, p. 312, pl. xxiv, . 1 (1835); Blanch. Hist. Ins. iii, p. 99 (1840).

Blanchard states that the Fabrician species and the one described and figured as such by Brullé are distinct. He also gives the habitat as "Indes-orientales" and Mauritius.

Division *METAPTERARIA* *.

Metapteraria, *Stål, En. Hem.* iv, p. 93 (1874).

Anterior femora spined beneath from near middle; head not prominently narrowed posteriorly; posterior femora nearly reaching or passing abdominal apex; head between antenniferous tubercles distinctly spinous or tuberculous.

Genus **ISCHNONYCTES**.

Ischnonyctes, *Stål, En. Hem.* iv, p. 94 (1874).
Emesa, *Lucas, Explor. Alg., Zool.* iii, p. 49 (1849).

Type, *I. barbarus*, Lucas, a Southern Palæarctic species.

Distribution. Palæarctic, Ethiopian, and Oriental Regions.

Head not pedunculate at base; first joint of rostrum considerably longer than the second; postocular portion of head longer

* Founded on the genus *Metapterus*, Costa, represented by a Palæarctic species.

than broad; one or two long spines to anterior femora situate before middle; body apterous, or hemelytra when present not extending much beyond the middle of the abdomen.

1017. **Ischnonyctes alatus**, sp. n.

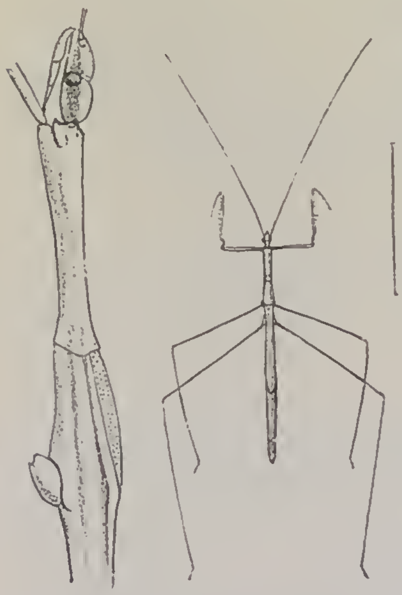

Fig. 153.—*Ischnonyctes alatus.*

Pale brownish-ochraceous; eyes, apex of rostrum, apex of anterior tibiæ, and apices of anterior tarsi piceous; head beneath and sternum brownish; first joint of antennæ apically piceous, its extreme apex luteous; first joint of antennæ about as long as anterior femora and coxæ together; apices of femoral spines piceous; posterior lobe of pronotum with two central carinate lines converging posteriorly; hemelytra about reaching middle of abdomen; posterior femora not quite reaching abdominal apex, shorter than the tibiæ; anterior tibiæ and apices of intermediate and posterior tibiæ obscurely annulated with brown.

Length 16 millim.

Hab. Ceylon; Peradeniya (*Green*).

Subfamily III. SAICINÆ.

Saicina, *Stål, En. Hem.* iv, p. 4 (1874).

As in the preceding subfamily, Emesinæ, ocelli are absent, but the coxæ are not elongately produced; the body is pilose or sericeous; the antenniferous tubercles are not laterally prominent; first joint of antennæ long and slender; pronotum elongate.

Only one genus of this small subfamily is at present known from British India.

Genus **POLYTOXUS**.

Polytoxus, *Spin. Ins. Artr.* p. 47 (1858); *Reut. Rev. d'Ent.* ix, p. 250 (1890).

Acanthothorax, *Costa, Eserc. Acc. Asp. Nat. Nap.* (2) ii (*Ragg. Emit. Sicil.*), p. 137 (1840); *Stål, Öfv. Vet.-Ak. Förh.* 1872, no. 6, p. 47; *id. En. Hem.* iv, p. 91 (1874); *nec Gœde, Coleopt.* 1833

Leptomera, *Montr. Ann. Soc. Linn. Lyon*, (2) xi, p. 238 (1864).

Costiella, *Reut. Rev. d'Ent.* ix, p. 241 (1890).

Type, *P. sanguineus*, Costa, a Palæarctic species.

Distribution. Palæarctic, Ethiopian, Oriental, and Australasian Regions.

Scutellum short, obtuse, somewhat posteriorly rounded, armed with an erect or suberect spine; postscutellum acutely produced, its apex distinctly reflexed; pronotum longer than broad, anterior lobe subelevated, anteriorly and posteriorly on each side subtuberculate, anteriorly perpendicularly deflected, the apical angles tuberculate; first joint of rostrum slightly passing eyes; body elongate; eyes only slightly prominent; anterior femora beneath rigidly setose or finely spinous.

As this is the only genus of Saicinæ occurring in British India, it is unnecessary to refer to the venation of the membrane for characters which separate it from Neotropical genera.

A. Pronotal lateral spines shorter than length of pronotum.

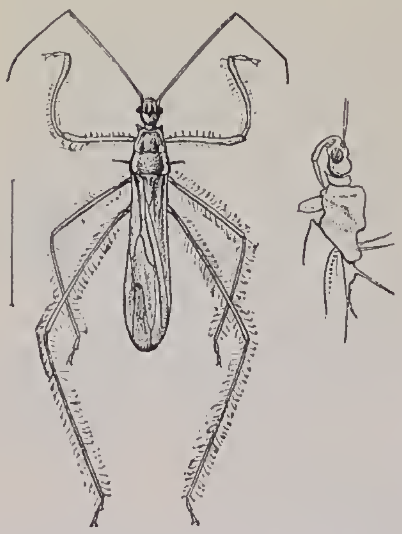

Fig. 154.—*Polytoxus pallescens.*

1018. **Polytoxus pallescens**, *Dist. A. M. N. H.* (7) xi, p. 257 (1903).

Pale stramineous; eyes black; legs strongly pilose; pronotal, lateral and scutellar spines with their apices fuscous; anterior prosternal spines long, robust, prominent; posterior femora about reaching apex of abdomen; anterior pronotal lobe somewhat broadly centrally foveate, with strongly carinate margins; basal joint of antennæ almost as long as posterior femora.

Length 14 millim.

Hab. Ceylon (*Green, Brit. Mus.*).

1019. **Polytoxus maculatus**, *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 53 (1903).

Pale ochraceous; posterior pronotal lobe reddish-ochraceous, with a large central piceous spot; scutellum piceous with its spine ochraceous; hemelytra and legs pale luteous; a spot on each lateral area of the sternal segments, sublateral area of the abdomen, apices of the femora, bases and apices of the tibiæ (narrowly), and the tarsi black or piceous; antennæ fuscous, base of first joint ochraceous; apices of pronotal lateral and scutellar spines fuscous; legs moderately pilose, posterior femora about as long as the abdomen; anterior lobe of pronotum obscurely centrally sulcate, and broadly, prominently foveate on each lateral area.

Length 12 millim.

Hab. Burma; Karennee (*Fea*).

B. *Pronotal lateral spines about as long as pronotum.*

1020. **Polytoxus femoralis,** *Dist. Ann. Soc. Ent. Belg.* xlvii, p. 53 (1903).

Head and pronotum reddish-ochraceous; posterior lobe of pronotum with a central fuscous or subpiceous spot; scutellum piceous, its spine ochraceous; hemelytra pale brownish-ochraceous, their lateral areas ochraceous; body beneath and legs ochraceous, abdomen sometimes castaneous, sublateral areas of the meso- and metasterna and abdomen piceous, extreme abdominal lateral margins luteous; antennæ, apices of femora, extreme bases of tibiæ, and the tarsi piceous; apices of the lateral pronotal and scutellar spines fuscous; legs pilose, posterior femora about reaching apex of abdomen; anterior pronotal lobe centrally sulcate, foveate on each lateral area, the sulcation and foveations strongly marginately carinate.

Length 10 millim.

Hab. Ceylon (*Green*).

Apparently allied to *P. longipes*, Stål, but differing, apart from other lesser characters, by having the posterior femora not passing the apex of the abdomen.

1021. **Polytoxus fuscovittatus,** *Stål* (Saica), *Freg. Eug. Resa, Ins. Hem.* p. 262 (1859); *id.* (Acanthothorax) *En. Hem.* iv, p. 91 (1874).

Head and pronotum rufescent, the last with a broad piceous medial fascia; scutellum piceous, its spine luteous with a fuscous apex; hemelytra very pale fuscous or piceous, the lateral margins ochraceous; body beneath ochraceous, with a very broad piceous fascia on each lateral area of sternum and abdomen; legs ochraceous or brownish-ochraceous, apices of the femora piceous or fuscous; lateral pronotal spines luteous, their apices fuscous, directed upward and forward, about as long as pronotum.

Length 7 to 8 millim.

Hab. Ceylon (*Lewis*). Burma; Bhamo (*Coll. Dist.*).—Philippines (*Semper*).

Subfamily IV. TRIBELOCEPHALINÆ.

Tribelocephalina, *St l, En. Hem.* iv, p. 4 (1874).

Ocelli none; body tomentose; antenniferous tubercles laterally prominent; first joint of antennæ incrassated; pronotum transverse; membrane very large.

A small subfamily confined to the Old World, and possessing only three genera, two of which are found in British India.

Synopsis of Genera.

A. Head anteriorly produced in a porrect spine; first joint of rostrum not extending behind eyes . . . . TRIBELOCEPHALA, p. 220.

B. Head obtuse, not anteriorly spinously produced; first joint of rostrum extending behind eyes . . . . OPISTHOPLATYS, p. 221.

Genus TRIBELOCEPHALA.

Tribelocephala, *Stål, Öfv. Vet.-Ak. Förh.* 1853, p. 263; *id. Hem. Afr.* iii. p. 160 (1865); *id. En. Hem.* iv, p. 90 (1874).

Type, *T. boschjesmana*, Stål, an Ethiopian species.

Distribution. Ethiopian and Oriental Regions.

Body oblong, ovate; head oblong, its base moderately constricted, anteriorly spinously developed; antenniferous tubercles laterally prominent; ocelli absent; rostrum with the first joint about equal to the two apical joints together; antennæ with the first joint incrassate, very little shorter than the head, second shorter than the first, remaining joints slender, indeterminate; pronotum transverse, narrowed from beyond middle; scutellum subtriangular; hemelytra a little shorter and narrower than the abdomen, the coriaceous portion small, elongate, occupying about half the length of hemelytra; membrane very large; legs short, anterior femora slightly incrassated.

A small genus at present containing four species, three of which are Oriental in distribution and are found in this fauna.

1022. **Tribelocephala indica**, *Walk.* (Opistoplatys) *Cat. Het.* viii, p. 20 (1873); *Dist. A. M. N. H.* (7) ix, p. 175 (1902).

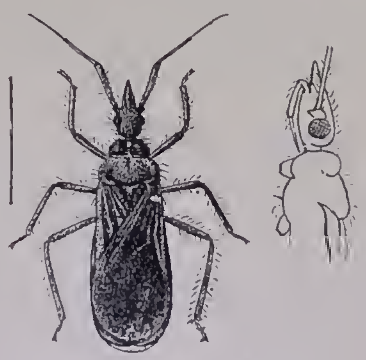

Fig. 155.—*Tribelocephala indica.*

Piceous or chocolate-brown, densely and more palely tomentose; membrane with the veins distinctly darker; rostrum, body beneath and legs a little paler in hue; head a little longer than the pronotum; head and pronotum moderately granulate; antennæ longly pilose.

Length 11 to 13 millim.

Hab. North Bengal (*Campbell, Brit. Mus.*). Ceylon; Peradeniya (*Green*).

T. lignea, Reut. (Rev. d'Ent. vi, p. 166, 1887), from Java, may probably prove to be conspecific with the above.

Genus OPISTHOPLATYS.

Opistoplatys, *Westw. Zool. Journ.* v, p. 447 (1834); *Stål, Hem. Afr.* iii, p. 160 (1865); *id. En. Hem.* iv, p. 90 (1874).
Decius, *Stål, Freg. Eug. Resa, Ins. Hem.* p. 263 (1859).

Type, *O. australasiæ*, Westw., an Australian species.

Distribution. Oriental and Australasian Regions; also recorded from China.

This genus is to be distinguished from the preceding (*Tribelocephala*) by the less produced and not spinously developed head, with the first joint of the antennæ either shorter, about as long, or slightly longer than the head; first joint of rostrum extending behind eyes.

A genus at present containing about a dozen species, of which about half are found in the Oriental Region and two in this fauna.

1023. **Opisthoplatys majusculus,** sp. n.

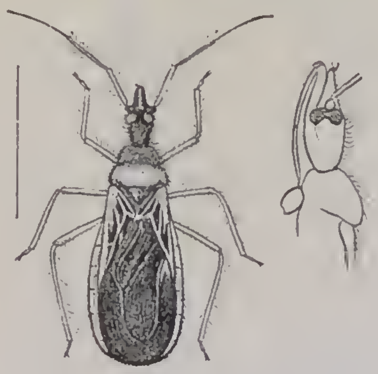

Fig. 156.
Opisthoplatys majusculus.

Pale brownish-ochraceous, longly pilose: head and anterior lobe of pronotum fuscous: inner area of corium between the veins and the membrane piceous, veins at base of membrane pale brownish-ochraceous; first joint of antennæ distinctly shorter than the head and about equal in length to second joint; head about as long as pronotum and scutellum together; hemelytra reaching the apex of abdomen.

Length $11\frac{1}{2}$ to 16 millim.

Hab. Tenasserim (*Coll. Dist.*). Tavoy (*Brit. Mus.*).—China (*Brit. Mus.*).

1024. **Opisthoplatys tenebrarius,** *Stål, En. Hem.* iv, p. 90 (1874).

Pale brownish, membrane fuscous, densely pilose; first joint of antennæ as long as head, second joint about as long as first; head a little longer than pronotum; membrane slightly passing abdominal apex; veins to corium prominent and slightly paler, veins to membrane a little darker.

Length $8\frac{1}{2}$ to 9 millim.

Hab. Burma; Karennee (*Fea*).—Java (*Mus. Leiden*).

Subfamily V. STENOPODINÆ.

Stenopodina, *Stål, En. Hem.* iv, p. 4 (1874).

Ocelli present; hemelytra each with a large areola occupying the basal area and part of the interior areas and reaching the membrane; interior area of the membrane truncated at base and shorter than exterior area; anterior tibiæ generally without a spongy furrow; head straight and porrect.

The Stenopodinæ are universally distributed and are classified in some 27 genera; of these 8 are included in this fauna.

Synopsis of Genera.

A. Apical spine to scutellum laterally produced, neither erect nor suberect.
- a. First joint of rostrum longer than two apical joints together . . . . PYGOLAMPIS, [p. 222.
- b. First joint of rostrum not longer than two apical joints together.
  - *a.* Anterior femora with two series of small spines beneath.
    - *a'*. Pronotum longer than broad . . . . SASTRAPADA, [p. 224.
    - *b'*. Pronotum about as long as broad . . . . . . STACCIA, p. 225.
  - *b.* Anterior femora with a single series of spines, or unarmed.
    - *a'*. Anterior femora incrassated and spined beneath . . . . ONCOCEPHALUS, [p. 227.
    - *b'*. Anterior femora not incrassated, unarmed.
      - *a*². Rostrum with first and second joints equal in length . . . . CAUNUS, p. 233.
      - *b*². Rostrum with first joint about as long as two apical joints together . . . . . . DIADITUS, p. 226.

B. Apical spine to scutellum erect or suberect.
- a. Rostrum with first joint not or very little longer than second; anterior lobe of pronotum spined on each side; apex of fifth dorsal abdominal segment truncate . . . . CANTHESANCUS, [p. 234.
- b. Rostrum with first joint longer than second; anterior lobe of pronotum not spined on each side; apex of fifth dorsal abdominal segment spinously produced . . . . THODELMUS, p. 235.

Genus **PYGOLAMPIS.**

Pygolampis, *Germ. Faun. Ins. Eur.* p. 8 (1817); *Burm. Handb.* ii, p. 243 (1835); *Amy. & Serv. Hém.* p. 391 (1843); *Fieb. Eur. Hem.* pp. 41 & 150 (1861); *Stål, En. Hem.* iv, p. 84 (1874); *Saund. Hem. Het. Brit. Islds.* p. 160 (1892).

Ochetopus, *Hahn, Wanz. Ins.* i, p. 176 (1831).

Stenopoda, *Brullé, Hist. Nat. Ins., Hem.* p. 324 (1835).

Type, *P. bidentata*, Goeze, a Palæarctic species.

Distribution. Generally but sparingly distributed.

Elongate; head as long or nearly as long as the pronotum,

sides almost parallel from base to insertion of antennæ, laterally spinous behind the eyes, central lobe prominent; rostrum with the first joint longer than the two apical joints taken together; first joint of antennæ thickened, as long or nearly as long as the head; pronotum elongate, narrowed anteriorly, lateral margins straight, basal margin a little sinuate; anterior and intermediate legs almost equally long, posterior legs much the longest, posterior femora not reaching the abdominal apex; anterior coxæ contiguous, intermediate coxæ distinctly separated, posterior coxæ placed widely apart; anterior angles of prosternum produced in a porrect or curved spine.

1025. **Pygolampis fœda,** *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 379; *En. Hem.* iv, p. 85 (1874).

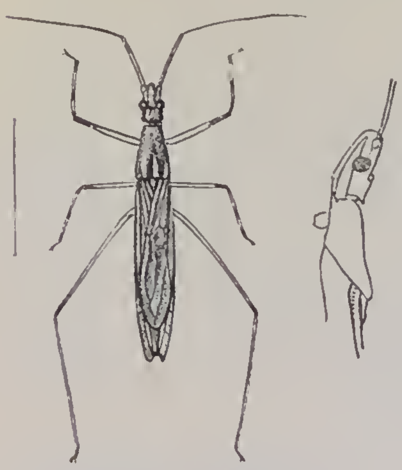

Fig. 157.—*Pygolampis fœda.*

Above brownish-ochraceous, beneath griseous; femora infuscated towards apex, anterior and intermediate tibiæ annulated with fuscous; mesosternum with two central piceous vittæ: central lobe of head a little prominent; first joint of antennæ in ♀ distinctly longer than the head, in ♂ about as long as head; basal joint of antennæ, femora and posterior tibiæ a little mottled with fuscous; pronotum with a longitudinal sulcation which is much wider behind.

Length $12\frac{1}{2}$ to 16 millim.

Hab. Ceylon; Peradenyia (*Green*). Burma; Karennee, Bhamo (*Fea*). Tenasserim; Malewoon (*Fea*).

1026. **Pygolampis unicolor,** *Walk. Cat. Het.* viii, p. 36 (1873).

Pale ochraceous, sometimes very pale fuscous; apices of the femora, two basal annulations and apices of anterior and intermediate tibiæ, bases of posterior tibiæ, a very broad central fascia extending through meso- and metanota and abdomen beneath, and three longitudinal fasciæ on apical abdominal segment above dark fuscous-brown; veins to corium pale fuscous; in one specimen the head is fuscous and the pronotum pale ochraceous, in a second the head and pronotum are fuscous; first joint of antennæ about as long as pronotum and somewhat longly pilose; head a little shorter than pronotum, the anteocular portion faintly longitudinally ridged, the postocular portion obsoletely sulcate; anterior lobe of pronotum sulcate, posterior lobe with four discal carinæ, the central two continuous and diverging, the outer two shorter and nearly straight; lateral margins carinate; hemelytra and posterior femora not quite reaching abdominal apex.

Length 13½ to 14½ millim.
Hab. North Bengal (*Campbell*).

Pygolampis concolor, Walk. Cat. Het. viii, p. 37 (1873).

The type of this species is not now to be found, and without the types Walker's descriptions are as a rule undeterminable. Moreover, he may have placed this species as a synonym of some other, without comment.

Genus **SASTRAPADA.**

Sastrapada, part., *Amy. & Serv. Hém.* p. 388 (1843); *Stål, Hem. Afr.* iii, p. 152 (1865); *id. En. Hem.* iv, p. 84 (1874).
Harpagochares, *Stål, Öfv. Vet.-Ak. Förh.* 1858, p. 258.
Ctenocnemis, *Fieb. Eur. Hem.* pp. 41 & 150 (1861).

Type, *S. flava*, Amy. & Serv., from Java.
Distribution. Palæarctic, Ethiopian, Oriental, and Australasian Regions.

Body elongate, narrowed anteriorly; head elongate, cylindrical, anteocular longer than the postocular portion, finely spinous underneath on each side behind eyes, which are rounded and semiglobose; antennæ short, first joint subequal to or shorter than head; rostrum with the first joint equal to, but not longer than, the two apical joints together; pronotum about twice as long as broad, broadest at base; scutellum acutely triangular; prosternum anteriorly spined on each side; legs moderate in length, anterior femora moderately incrassated, with two series of small spines beneath, anterior tibiæ shorter than anterior femora and unarmed.

1027. **Sastrapada baerensprungi**, *Stål* (Harpagochares), *Öfv. Vet.-Ak. Förh.* 1859, p. 381; *Dist. A. M. N. H.* (7) x, p. 177 (1902).
Sastrapada femorata, *Costa, Addit.* p. 12, t. ii, f. 2 (1860).
Ctenocnemis flavescens, *Fieb. Eur. Hem.* p. 150 (1861).
Sastrapada incerta, *Sign. Ann. Soc. Ent. Fr.* 1860, p. 968; *Stål, Hem. Afr.* iii, p. 152 (1865).
Sastrapada bipunctata, *Walk. Cat. Het.* viii, p. 28 (1873).
Pygolampis innotata, *Walk. Cat. Het.* viii, p. 36 (1873).

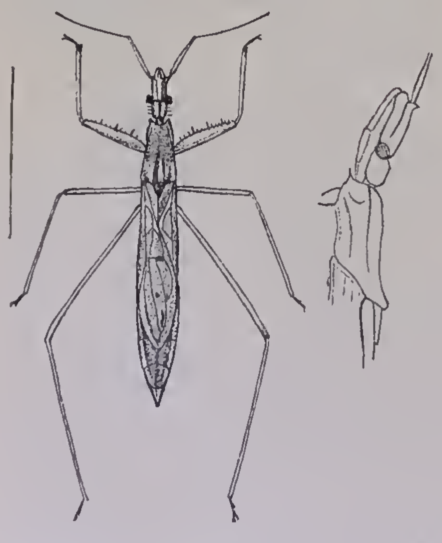

Fig. 158.—*Sastrapada baerensprungi.*

Pale ochraceous; a small discoidal spot to hemelytra and minute lateral abdominal spots black; anterior coxæ, some mottlings or suffusions to anterior femora, apex and sometimes subbasal annulation to

anterior tibiæ, lateral areas of head, disk of sternum, and sometimes two narrow central fasciæ to abdomen piceous; head a little shorter than pronotum; first joint of antennæ a third part shorter than head; hemelytra shorter than abdomen.

Length 14 to 18 millim.

Hab. Ceylon; Peradenyia (*Green*).—Southern Palæarctic Region; South Africa; Madagascar, Bourbon, Mauritius; Malayan Archipelago; Timor.

Genus **STACCIA.**

Staccia, *Stål, Hem. Afr.* iii, p. 150 (1865); *id. En. Hem.* iv, p. 84 (1874).

Type, *S. diluta*, Stål.

Distribution. Oriental and Ethiopian Regions.

Body moderately elongate; pronotum about equally long and broad; anteocular portion of head armed with a long spine on each side, anteocular longer than postocular portion of head; prosternum anteriorly armed with a long spine on each side; anterior femora incrassated and with two series of strong spines beneath; rostrum with the first joint longer than second, but not longer than second and third together.

1028. **Staccia diluta**, *Stål* (Oncocephalus), *Freg. Eug. Resa, Ins. Hem.* p. 263 (1859).

Ochraceous, eyes black; lateral margins of pronotum sometimes dark fuscous as in specimen figured, but this character is sometimes obsolete; first joint of antennæ shorter than head, about as long as anteocular portion, margins of postocular area rounded, narrowed posteriorly; pronotum with the anterior and posterior lateral angles tuberculous, anteriorly the prosternal spines visible from beneath; pronotum transversely impressed at about one-third from base, the anterior lobe slightly globose; hemelytra reaching abdominal apex in male, but not in female, and with a large cell at inner margin.

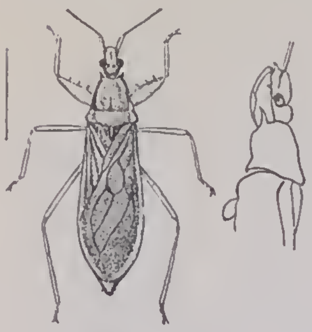

Fig. 159.—*Staccia diluta.*

Length 8 to 10 millim.

Hab. Ceylon (*Green*). Burma; Bhamo, Teinzo, Rangoon (*Fea*).—Philippines.

1029. **Staccia ? plebeja**, *Stål, Berl. ent. Zeitschr.* x, p. 166 (1866).

Pale testaceous-fulvescent; apices of the posterior femora somewhat testaceous. Allied to *S. diluta*, but with the head more incrassated, and with the anteocular portion of the head beneath

without the long spines; the anterior femora are also without the long spines beneath.

Length $8\frac{1}{2}$ millim.

Hab. Ceylon (*fide Stål*).

I have not seen this species, which from the above characters can scarcely belong to the genus *Staccia*. In fact, Stål himself, who at the time of writing his fourth instalment of his 'Enumeratio Hemipterorum' had not the type before him, placed it in his 'Species Stenopidinorum incerti generis.' I have thought it best, however, to record the species in this place.

Genus **DIADITUS**.

Diaditus, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 383; *id. Hem. Afr.* iii, p. 150 (1865); *id. En. Hem.* ii, p. 124 (1872); *Champ. Biol. Centr.-Am., Rhynch.* ii, p. 188 (1898).

Type, *D. semicolon*, Stål, a Neotropical species.

Distribution. Neotropical and Oriental Regions.

Body oblong, narrowed anteriorly; head cylindrical, anteocular portion a little longer than the postocular, antenniferous tubercles prominently subspinously produced, with two porrect spines between them; antennæ with the first joint shorter than the head; rostrum with the first joint about as long as the two apical joints together; legs slender, anterior femora a little incrassated, posterior femora not or nearly reaching abdominal apex; scutellum with a horizontal apical spiniform process.

In the Ceylonese species here included, the antennæ are peculiar in having the third joint very short and subnodulose, a character not exhibited in the American species as at present known.

1030. **Diaditus errabundus**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 54.

Hoary grey, streaked and suffused with fuscous; head with the eyes black, and with a distinct central piceous line on the postocular area; pronotum with longitudinal fuscous lines, the central area and base more or less piceous; scutellum piceous; corium with longitudinal fuscous streaks, two small fuscous discal spots connected by a line of the same colour, and with pale greyish suffusions which extend also to the membrane; connexivum alternately fuscous and grey; legs pale ochraceous annulated with fuscous; an oblique black fascia crossing meso- and metasterna near the coxæ; abdomen with a central incised line which is black on the last two segments; head distinctly tuberculously spinous at the antenniferous tubercles, between which the apex of the head is bispinously produced; antennæ pale with the basal and apical joints fuscous;

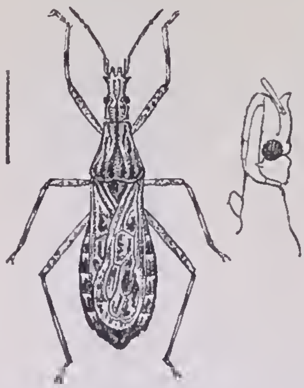

Fig. 160.
Diaditus errabundus.

pronotum broadly longitudinally sulcate, postocular area of head medially less broadly sulcate.

Length 10 millim.

Hab. Ceylon; Kurunegalla and Peradeniya (*E. E. Green*).

The first Eastern species described belonging to this hitherto purely Neotropical genus.

Genus ONCOCEPHALUS.

Oncocephalus, *Klug, Symb. Phys.* ii[c] (1830); *Stal, Hem. Afr.* iii, p. 155 (1865); *Fieb. Eur. Hem.* pp. 42 & 151 (1861); *Reut. Monogr., Act. Soc. Sc. Fenn.* xii, p. 675 (1883).

Spilalonius, *Stål, En. Hem.* ii, p. 123 (1872).

Subg. Bæbius, *Stål, Hem. Afr.* iii, p. 154 (1865).

Type, *O. notatus*, Klug.

Distribution. Nearctic, Palæarctic, Ethiopian, Oriental, and Australasian Regions.

Body oblong or moderately elongate; head cylindrical, shorter than the pronotum, anteriorly armed between the antennæ with two small spines which are sometimes very indistinct, postocular portion short; antennæ with the first joint a little shorter than the head; pronotum with the anterior angles acutely prominent; scutellum with the apex laterally spinose; prosternum anteriorly bispinose; anterior femora incrassated, beneath finely spinose.

A. Hemelytra fully developed.

a. Anteocular and postocular areas of head almost equal in length.

1031. **Oncocephalus notatus**, *Klug, Symb. Phys.* ii[c], pl. xix, f. 1 (1830); *Reut. Act. Soc. Sc. Fenn.* xii, p. 740, pl. iii, f. 45 (1883).

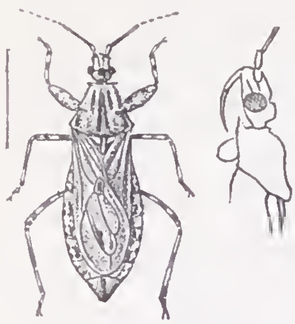

Fig. 161.
Oncocephalus notatus.

Ochraceous; a large spot on postocular area of head, three vittæ to anterior lobe and five to posterior lobe of pronotum, spots to connexivum above and beneath, head beneath, lateral areas of sternum, a broad submarginal fascia to abdomen beneath, spots and other markings to anterior femora, annulations to intermediate and posterior femora and tibiæ, cell at inner angle of corium, and a discal oblong spot to membrane piceous or fuscous; head with the ante- and postocular areas about equal in length; pronotum with the anterior angles laterally spinously prominent, lateral margins sinuate, posterior lateral angles rounded, centrally sulcate on disk; hemelytra in female not reaching apex of abdomen.

Length 10 to $10\frac{1}{2}$ millim.

Hab. Kashmir (*Hügel, Vienn. Mus.*), Bor Ghát (*Dixon*).—Described by Klug from "Arabia deserta."

1032. **Oncocephalus naboides**, *Walk.* (Pirates) *Cat. Het.* vii, p. 121 (1873); *Dist. A. M. N. H.* (7) xi, p. 257 (1903).
Oncocephalus pilosus, *Reut. Act. Soc. Sc. Fenn.* xii, p. 735, pl. ii, f. 42 (1883).

Pilose, ochraceous; head, antennæ, three longitudinal fasciæ to anterior pronotal lobe, scutellum, spots to connexivum above and beneath, streaks to anterior femora above, annulations to anterior tibiæ, and intermediate and posterior femora and tibiæ fuscous; abdomen beneath laterally broadly very pale fuscous on each side; head short, thick, with two black spots at the area of the ocelli, anteocular and postocular portions almost equal; antennæ longly pilose; pronotum profoundly sinuate at anterior margin; rostrum with the first joint slightly shorter than the second.

Length 11 to $11\frac{1}{2}$ millim.

Hab. "Hindustan" (*Brit. Mus.*). "North India" (*Coll. Signoret*).

Some confusion is likely to arise around this species. Walker (*op. cit.* viii, p. 27, n. 17) also described a species from Ceylon under the name of *Oncocephalus naboides*, the type of which cannot now be found, and which I therefore, in consideration of Walker's method of describing, propose to treat as non-existent. Lethierry and Severin have included the last description in their Catalogue (t. iii, p. 87), and the name can remain, but the reference must be corrected. For the opportunity of seeing a specimen identified as *O. pilosus* in Signoret's collection, now in the Vienna Museum, I have to thank Dr. A. Handlirsch.

1033. **Oncocephalus picturatus**, n. sp.

Ochraceous; a spot on each side of anteocular portion of head and the area of the ocelli, irregular mottlings to anterior lobe and a subtriangular central fascia, a fascia to each lateral margin of posterior lobe of pronotum, scutellum, spots (alternately large and small) to connexivum above and beneath, mottlings and two apical annulations to anterior femora, three or more annulations to intermediate and posterior femora, three annulations to anterior and intermediate tibiæ, basal annulation to posterior tibiæ, pro- and mesosterna and lateral areas of metasternum piceous or black; abdomen beneath with two linear longitudinal pale fuscous fasciæ on each lateral area; antennæ pilose, first joint about as long as head, apex of second joint fuscous (remainder mutilated in specimen described); head with the anteocular area to base of antennæ about equal in length to the postocular area; pronotum with the anterior and posterior lobes almost equal in length, the anterior and posterior angles shortly dentate: legs pilose; posterior tibiæ a little longer than posterior femora.

Length $12\frac{1}{2}$ millim.

Hab. Burma; Rangoon (*Atkinson, Brit. Mus.*).

b. *Anteocular portion of head longer, but not twice the length of postocular portion.*

1034. **Oncocephalus fuscinotum**, *Reut. Act. Soc. Sc. Fenn.* xii, p. 731, pl. ii, f. 79 (1883).

Head, pronotum, scutellum, and body beneath fuscous; hemelytra brownish-ochraceous; rostrum, legs and apex of scutellum luteous; a testaceous spot behind each eye: apical areas of femora, and somewhat obsolete medial annulations to same, basal, medial, and somewhat obsolete apical annulations to tibiæ and base of rostrum castaneous; membrane mottled with paler coloration; antennæ with the first and second joints castaneous (remainder mutilated in typical specimen), first joint slightly shorter than anteocular portion of head, which is longer than postocular portion, but not twice as long; anterior and posterior lateral angles of pronotum obtuse; connexivum spotted with luteous above and beneath.

Length 11½ millim.

Hab. Lahore (*Hügel, Vienna Mus.*).

1035. **Oncocephalus impudicus**, *Reut. Act. Soc. Sc. Fenn.* xii, p. 715, pl. ii, ff. 26 & 27 (1883).

Ochraceous; eyes black; antennæ, legs and abdomen beneath luteous; pronotum with the lateral margins and three fasciæ to anterior lobe fuscous: a central spot to clavus, interior cellular area to corium, a small spot behind it, and a variably long irregular spot in outer cellular area of membrane castaneous; head beneath, sternum, anterior and posterior femora, apices of intermediate femora, three annulations to tibiæ (sometimes only basal and apical to posterior tibiæ), and lateral areas and apex of abdomen fuscous-brown; apex of first antennal joint a little fuscous, apex of third joint black; anteocular portion of head almost twice as long as postocular portion; anterior and posterior lateral angles of pronotum prominently subspinous; apical spine to scutellum long, acute; first and second joints of rostrum subequal in length.

Var. Corium with a castaneous linear and subclaval and a small triangular spot in front of the interior cellular area to corium.

Length 12 to 13 millim.

Hab. Bengal. Calcutta (*fide Reuter*). Tenasserim Valley: Myitta (*Doherty*).—Also found in Java, Sumatra, Borneo, and Philippine Islands.

c. *Anteocular portion of head twice or more than twice the length of postocular area.*

1036. **Oncocephalus modestus**, *Reut. Act. Soc. Sc. Fenn.* xii, p. 716, pl. ii, f. 28 (1883).

Pale cinnamon-brown; membrane with a discal elongate

castaneous spot; an inner angular cellular spot to corium and a smaller following spot dark cinnamon-brown; rostrum, under surface of head, prosternum and legs luteous; apical half of rostrum, lateral areas of head and sternum, apices of posterior femora, semi-annulations to tibiæ, and speckles to anterior femora pale fuscous. Allied in structure to *O. impudicus*: head more elongate, lateral posterior angles of pronotum much more obtuse; apical spine to scutellum shorter, more robust, less acute and slightly recurved at apex; first joint of antennæ shorter, scarcely longer than anteocular portion of head.

Length 12 millim.

Hab. Calcutta (*Stockholm Mus.*). Ceylon (*Vienna Mus.*).

1037. **Oncocephalus lineosus**, sp. n.

Piceous-brown; a broad lateral and a narrow central fascia to anteocular portion of head, and a curved linear spot behind eyes, six longitudinal linear fasciæ to pronotum (of which the sublateral are abbreviated), a central line and apex to scutellum, two exterior longitudinal veins to corium, connexivum, body beneath, rostrum and legs pale ochraceous; lateral margins of prosternum, oblique fasciæ on meso- and metasterna, two longitudinal fasciæ on each lateral area of the abdomen, longitudinal lines to anterior femora, apices of intermediate and posterior femora, two basal annulations to anterior and intermediate tibiæ and an obscure basal annulation to posterior tibiæ piceous; antennæ pale ochraceous, apex of first and second and the whole of the remaining joints piceous, first joint as long as from insertion to posterior margin of eyes; head with the anteocular area from eyes to base of antennæ much longer than the postocular area; pronotum with the anterior angles tuberculously prominent, posterior angles subprominent; posterior tibiæ slightly longer than posterior femora.

Length 12 millim.

Hab. Ceylon; Maskeliya (*Green*).—Singapore (*Ridley*, *Brit. Mus.*).

1038. **Oncocephalus klugi**, sp. n.

Pale brownish-ochraceous; a large central spot to postocular area of head black; lateral areas of head, three longitudinal striæ and two short oblique striæ on each lateral area of anterior pronotal lobe, central cellular areas to the coriaceous and membranaceous areas of hemelytra, and a small spot beyond the first, lateral margins and a sublateral linear fascia to abdomen beneath, and annulations to anterior tibiæ pale brownish-castaneous; apex of scutellum luteous; antennæ ochraceous, first joint about as long as from its insertion to eyes; head with the anteocular area from eyes to base of antennæ about twice as long as postocular area; pronotum with the lobes about equal in length, the posterior lobe centrally broadly impressed, anterior angles obtusely tuber-

culously prominent, posterior angles subprominent; posterior tibiæ a little longer than posterior femora.

Length 16 millim.

Hab. North India (*Coll. Signoret*). Burma; Bhamo.

1039. **Oncocephalus cingalensis**, *Walk. Cat. Het.* viii, p. 26 (1873); *Dist. A. M. N. H.* (7) x, p. 178 (1902).

Ferruginous; pronotum with two transverse ochraceous spots at base, a somewhat large subquadrate fuscous spot at inner angle of corium; legs ochraceous, spotted and angulated with fuscous: lateral margins of head and pronotum, a central fascia to head, scutellum and small spots to connexivum above and beneath fuscous; antennæ pilose, first joint about as long as anteocular portion of head, which is twice as long as postocular portion (not thrice as long as described by Walker); pronotum elongate, the anterior and posterior lateral angles distinctly subspinously produced, anterior lobe finely centrally sulcate; rostrum with the first joint slightly shorter than second: in the female the hemelytra do not reach the abdominal apex.

In a Bornean male specimen the first and base of second joint of rostrum and anterior and posterior areas of prosternum are luteous.

Length 15 to $18\frac{1}{2}$ millim.

Hab. "India" (*Brit. Mus.*). Ceylon (*Thwaites*).—The British Museum also contains specimens from Singapore, Sandakan, and from Adelaide River, Australia.

1040. **Oncocephalus annulipes**, *Stål, Öfv. Vet.-Ak. Förh.* 1855, p. 44: *id. Hem. Afr.* iii, p. 158 (1865); *Reut. Act. Soc. Sc. Fenn.* xii, p. 706, pl. i, f. 18 (1883); *Dist. A. M. N. H.* (7) x, p. 178 (1902).

Oncocephalus cingalensis, *Kirby* (*nec Walk.*), *Journ. Linn. Soc., Zool.* xxiv, p. 117 (1891).

Very pale brownish-ochraceous; two annulations to first joint of antennæ, four obsolete lines on anteocular portion of head and a large medial spot on postocular portion, rostrum beyond middle, three indistinct longitudinal fasciæ on anterior area of pronotum, lateral areas of scutellum, a central streak to clavus, a posterior oblong subclaval spot, with a much smaller outer spot, and a large subquadrate spot in inner areola to corium, a small basal and a large discal elongate spot to membrane, marginal spots to abdomen, irregular spots to sternum, apical areas of intermediate and posterior femora, three annulations to anterior tibiæ, base, apex, and subbasal annulations of intermediate and posterior tibiæ, and apices of the tarsi dark fuscous or black; anterior femora variably marked with fuscous; anteocular more than twice the length of postocular portion of head; first joint of antennæ as long as anteocular portion of head; lateral margins of pronotum armed medially with a small tubercle or tooth.

Length 14 to 24 millim.

Hab. Kashmir (*Hügel*). Bombay (*Leith*). Bor Ghát (*Dixon*). Ceylon (*Green*). Burma; Karennee (*Fea*). Tenasserim; Meetan (*Fea*).

Stål identified this species, which he described, as from Caffraria, Sierra Leone, Philippines, Australia, and New Caledonia. The British Museum also contains specimens from Ceylon, Singapore, Java, Borneo, and East Africa. I took the species in the Transvaal. Some recent writers—Reuter, Lethierry, and Severin—have regarded it as confined to South Africa; but this seems quite a mistake.

1041. **Oncocephalus schioedtei**, *Reut. Act. Soc. Sc. Fenn.* xii, p. 702 (1883).

Pale brownish-ochraceous; basal joint of antennæ biannulated with fuscous; head with a prominent black spot on disk behind eyes, the lateral areas fuscous; pronotum with two central longitudinal lines, which are fused on anterior lobe, two more obscure and waved lines on each lateral area, and the lateral margins fuscous; scutellum fuscous, with a central fascia (not reaching base) ochraceous; corium with a posterior subclaval elongate spot, a cellular subquadrate spot near inner angle, a very small spot almost between them, and a large discal elongate spot to membrane cinnamon-brown, with their margins greyish; second joint excluding base and remaining joints of rostrum, oblique lateral areas of meso- and metasterna, apices of intermediate and posterior femora, longitudinal lines on under surface of anterior femora, basal, central and apical annulations to anterior tibiæ, subbasal annulations to intermediate and posterior tibiæ, and their extreme apices fuscous; anteocular about twice the length of postocular area of head; first joint of antennæ about as long as head; anterior and lateral angles of pronotum distinctly acutely prominent.

Length 16 to 21 millim.

Hab. Bengal; Serampore (*Copenhagen Mus.*). Tenasserim; Victoria Point (*Brit. Mus.*).

This species may be recognized by the subacute anterior and posterior angles of the pronotum.

B. *Hemelytra abbreviated.*

a. *Pronotum with a spinous tubercle on each side near middle.*

1042. **Oncocephalus micropterus**, *Horv. Term. Füzetek*, xii (1), 1889, p. 37.

Pale testaceous; lateral lines and a central postocular spot to head, a central longitudinal fascia to pronotum, scutellum (excluding apex of spinous prolongation), a spot at apex of each abbreviated hemelytron, apical area of rostrum, apices of femora,

three annulations to tibiæ (somewhat obsolete on posterior tibiæ) dark fuscous or black; head with the anteocular much longer than the postocular portion; antennæ ochraceous, base of first joint stramineous, apex of second joint fuscous, remaining joints mutilated in typical specimen, first joint a little longer than anteocular portion of head; hemelytra very short, about twice as long as scutellum, their apices rounded; pronotum with the anterior lobe much longer than the posterior, its anterior and posterior angles tuberculously prominent and with a spine on each lateral margin of anterior lobe behind middle.

Length 15½ millim.

Hab. Himalaya (*Budapest Mus.*).

I have seen the type of this species by the courtesy of Dr. Horvath.

b. *Pronotum without lateral median spines.*

1043. **Oncocephalus morosus**, sp. n.

Dark fuscous, greyishly sericeous; base of first joint of antennæ, basal two-thirds of intermediate femora, two broad annulations to anterior and intermediate tibiæ, posterior tibiæ (excluding two obscure basal annulations), and an angular spot on under surface of anterior femora luteous; antennæ with the first joint about as long as from insertion to eyes; head broad and robust, anteocular much longer than postocular area; pronotum with the anterior lobe much longer than the posterior, which has two distinct central curved carinæ; hemelytra abbreviated, only reaching the second abdominal segment, their apices rounded, and containing a small fuscous spot near apex.

Length 20 millim.

Hab. Sikhim; Mungphu (*Atkinson, Brit. Mus.*).

Genus **CAUNUS.**

Caunus, *Stål, Hem. Afr.* iii, p. 153 (1865); *id. En. Hem.* iv, p. 84 (1874); *Reut. Act. Soc. Sc. Fenn.* xii, p. 750 (1883).

Type, *C. capensis*, Stål, a South-African species.

Distribution. Ethiopian and Oriental Regions.

Allied to *Oncocephalus*, but with the anterior femora not incrassated; head between antennæ produced into two porrect spines, anteocular portion longer than postocular; rostrum with the first and second joints equal in length; pronotum deflected from a little beyond base, longitudinally carinate and sulcate; lateral margins of the prosternum moderately crenulate, anterior spines porrect; tibiæ shortly pilose.

1044. **Caunus farinator**, *Reut. Act. Soc. Sc. Fenn.* xii, p. 752, pl. iii, f. 55 (1883).

Palely greyishly testaceous; central sulcation to pronotum,

small elongate interior vitta to corium, irregular markings to membrane, femora, lateral areas of sternum and abdomen, the last with an inner series of small elongate spots, and apical joints of rostrum and antennæ fuscous; hemelytra in female not reaching the abdominal apex; head about as long as the pronotum, which has a broad central sulcation, on each side of which on anterior area it is carinate and finely sulcate.

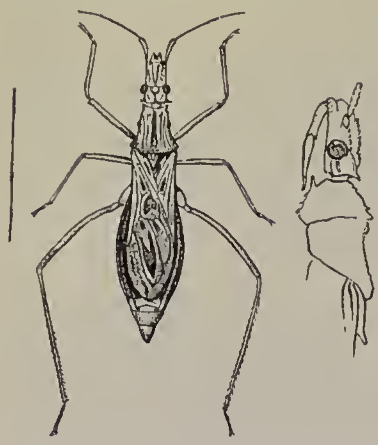

Fig. 162.—*Caunus farinator.*

Length $16\frac{1}{2}$ millim.

Hab. Tranquebar.

I am indebted to Dr. Meinert, of the Copenhagen Museum, for the opportunity of examining and figuring this species.

Genus CANTHESANCUS.

Canthesancus, *Amy. & Serv. Hém.* p. 389 (1843); *Stål, Hem. Afr.* iii, p. 151 (1865); *id. En. Hem.* iv, p. 85 (1874).

Type, *C. trimaculatus*, Amy. & Serv., a Javan species.

Distribution. Oriental Region and China.

Hemelytra complete; membrane and corium distinctly separated, the first with a large subtriangular discoidal area; interior area of the membrane shorter than the exterior area; scutellum with a long erect spine; rostrum with the first joint not or very little

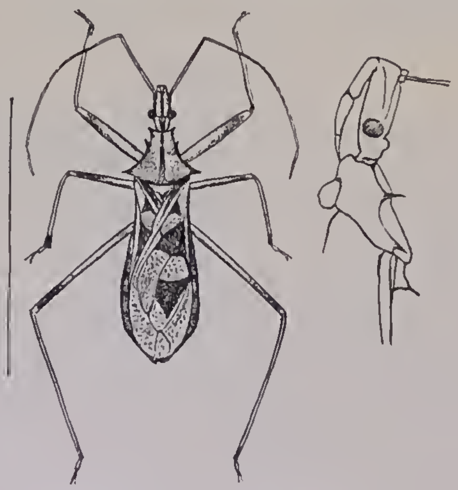

Fig. 163.—*Canthesancus gulo.*

longer than the second; anterior lobe of the pronotum posteriorly with a spine on each lateral margin; fifth dorsal segment of the abdomen with its apex truncated, its apical angles not spinous.

1045. **Canthesancus gulo**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 44.

Head, pronotum and scutellum griseous-ochraceous; hemelytra brownish-ochraceous; a central black line to head continued through pronotum; pronotal spines fuscous; basal half of clavus, and three irregular spots to hemelytra—the first smallest and subbasal, the second large and transverse at junction of corium and membrane, the third on disk of membrane—pale castaneous; the hemelytra are finely mottled with brown excepting at basal angle of corium, apical areas of femora and apices of tibiæ fuscous; antennæ black, bases of first and second joints pale ochraceous, first joint about as long as pronotum and scutellum together.

Length 27 to 29; breadth between pronotal angles 7 millim.

Hab. Sikhim. Assam; Margherita (*Doherty*). Burma; Rangoon (*Fea*).—Malay Peninsula.

1046. **Canthesancus helluo**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 44.

Somewhat closely allied to *C. gulo*, but first joint of antennæ a little longer than pronotum and scutellum together; tibiæ with the bases and apices fuscous, the anterior and intermediate tibiæ with two or more less distinct medial annulations, and the posterior tibiæ with a single subbasal annulation, fuscous; rostrum pale ochraceous, with its apex fuscous.

Length 25 to 28; breadth between pronotal angles $7\frac{1}{2}$ millim.

Hab. Nilgiri Hills (*Hampson*). Ceylon (*Brit. Mus.*).—Borneo (*Shelford*).

In the specimen from the Nilgiri Hills the bases of the tibiæ are not fuscous.

1047. **Canthesancus picticollis**, *Stål, En. Hem.* iv, p. 89 (1874).

Described by Stål as differing from the two preceding species, to which it is much allied, by having the antennæ pale ochraceous, the apex of the first joint black, the apices of the pronotal and scutellar spines pallescent; posterior pronotal lobe black, with four testaceous vittæ, the two lateral anteriorly confluent.

Length, ♀, 27; breadth 5 millim.

Hab. "India orientalis" (*Stockholm Mus.*).

Genus THODELMUS.

Tholdelmus, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 377; *id. Hem. Afr.* iii, p. 150; *id. En. Hem.* iv, p. 85 (1874).

Type, *T. falleni*, Stål.

Distribution. Ethiopian, Oriental, and Australasian Regions.

Thodelmus differs from the preceding genus (*Canthesancus*), to

which it is much allied in general structure and appearance, in having the first joint of the rostrum distinctly longer than the second, and the anterior lobe of the pronotum posteriorly without a spine on each lateral margin; fifth dorsal segment of abdomen with its apex angulately and spinously produced.

1048. **Thodelmus falleni**, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 378; *Dist. A. M. N. H.* (7) x, p. 179 (1902).
Stenopoda hastata, *Walk. Cat. Het.* viii, p. 32 (1873).

Cinnamon-brown; a central and lateral fascia on each side of head, apices of first and second joints of antennæ, lateral margins and a central line to anterior lobe of pronotum and apices of femora and tibiæ black; lateral margins of corium, apical spine to scutellum, posterior pronotal lateral spines, legs, apex of rostrum and anal segment of abdomen luteous; abdomen beneath and an oblique fascia on each side of sternum beyond coxæ testaceous; head a little longer than pronotum, with a distinct spine on each side at apex; antennæ pilose, first joint about as long as head; pronotum very finely granulate; hemelytra finely mottled with ochraceous; legs somewhat longly pilose.

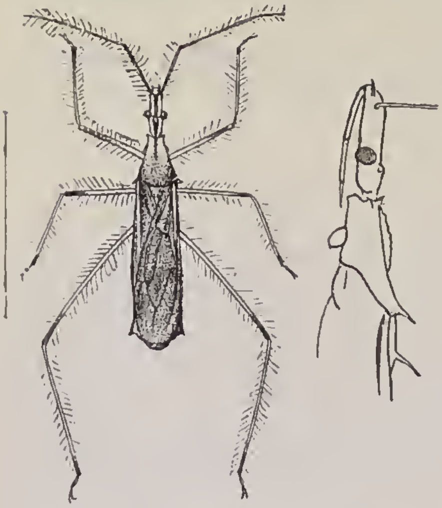

Fig. 164.—*Thodelmus falleni.*

Length $21\frac{1}{2}$ to 24 millim.

Hab. Bombay. Nilgiri Hills (*Hampson*). Ceylon; Peradeniya (*Green*). Burma; Toungoo (*Fea*).

Subfamily VI. SALYAVATINÆ.

Salyavatina, *Stål, En. Hem.* iv, p. 4 (1874).

Hemelytra without the large areola as in the Stenopodinæ; interior area of membrane longer than exterior area; anterior tibiæ generally with a spongy furrow; scutellum subtriangular, its apex spinously produced; anterior tarsi two-jointed.

A small subfamily containing some six genera, nearly all of Old World distribution, and of which three are now known to form part of this fauna.

Synopsis of Genera.

A. Head porrectly produced between antenniferous tubercles.
  a. Anterior tibiæ simple .... Lisarda, p. 237.
B. Head not porrectly produced between antenniferous tubercles.
  b. Anterior tibiæ apically compressed and ampliated .... Valentia, p. 239.
  c. Anterior tibiæ strongly dilated on each side .... Petalochirus, p. 240.

Genus **LISARDA.**

Lisarda, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 192; *id. Hem. Afr.* iii, p. 147 (1865); *id. En. Hem.* iv, p. 81 (1874).
Subg. Œnusa, *Stål, En. Hem.* iv. p. 82 (1874).

Type, *L. rhypara*, Stål.

Distribution. Oriental and Ethiopian Regions.

Head oval, distinctly narrowed behind eyes, and anteriorly between the antenniferous tubercles distinctly and prominently produced; antennæ with the first joint about as long as the head or a very little longer, a little shorter than the second; rostrum with the first joint longer than the second; pronotum transversely constricted before the middle; scutellum with the apex spinously produced; legs moderately long, posterior coxæ not very wide apart; anterior femora very moderately thickened.

A. *Apical process to head porrect; apical segmental angles to connexivum not spinous.*

a. *Apical spine to scutellum short, obtuse, robust.*

1049. **Lisarda annulosa**, *Stål, En. Hem.* iv, p. 83 (1874).

Brownish-ochraceous; base and annulation to second joint of antennæ, mottlings to hemelytra and abdomen, connexivum and legs luteous; subocellate spots to connexivum, head beneath, sternum, a broad macular fascia on each side of abdominal disk joining a spot on apical segment, and a few small linear central spots dark fuscous or castaneous; tibiæ and femora annulated with fuscous; apical prolongation to head porrect; femora with an obscure spine near apex, the anterior femora also medially spined beneath; posterior lateral pronotal

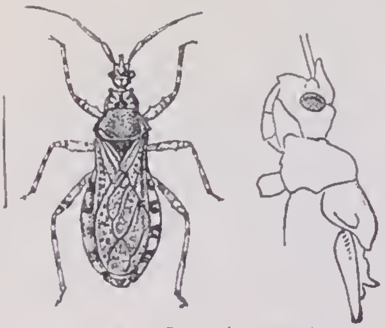

Fig. 165.—*Lisarda annulosa.*

angles obtusely prominent; apical spine to scutellum short, obtusely robust.

Length 11 millim.

Hab. Sylhet (*Coll. Sign.*). Ceylon (*Green*). Burma; Karennee.

1050. **Lisarda uniformis,** *Dist. Ann. Soc. Ent. Belg.* 1903, p. 55.

Pale ochraceous; eyes, pronotum, scutellum, sternum, a central narrow line and a broad slightly curved fascia on each lateral area of the abdomen plumbeous; lateral areas of the posterior pronotal lobe pale ochraceous; anterior lobe of the pronotum profoundly excavate, a central narrow sulcation traversing both lobes, anterior angles prominent and plumbeous, posterior lateral angles obtusely prominent, a little recurved; connexivum very obscurely or obsoletely spotted with darker ochraceous; legs uniformly concolorous, not annulated; apical spines to scutellum short, obtuse, robust, laterally oblique; femora spined as in preceding species.

Length 10 to 12 millim.

Hab. Ceylon (*Green*).

b. *Apical spine to scutellum slender, obliquely suberect.*

1051. **Lisarda recurva,** sp. n.

Closely allied to *L. annulosa*, but differing in the posterior pronotal angles which are acutely produced and strongly recurved; the apical spine to scutellum is also long, acute, obliquely suberect; the dark spots to connexivum are transversely linear, and not subocellate; the hemelytra are much less mottled with luteous.

Length 10 millim.

Hab. Burma; Karennee (*Fea*).

1052. **Lisarda rhypara,** *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 192; *Reut. Act. Soc. Sc. Fenn.* xii, p. 337 (1881); *Dist. A. M. N. H.* (7) x, p. 179 (1902).
Reduvius argillaceus, *Walk. Cat. Het.* vii, p. 195 (1873).

Head above, pronotum, scutellum and sternum fuscous; hemelytra, abdomen beneath and legs brownish-ochraceous; antennæ ochraceous, apex of second joint fuscous; apices of femora and an upper spot at bases of tibiæ castaneous; a lateral vitta on each side of abdomen and a darker and more distinct central line fuscous; anterior prolongation to head porrect; lateral pronotal angles short, acute, recurved; apical spine to scutellum slender, acute, obliquely suberect.

Length $11\frac{1}{2}$ to 14 millim.

Hab. Burma (*Coll. Dist.*). Tenasserim (*Brit. Mus.*).—Penang; Java.

c. *Apical spine to scutellum acute, almost perpendicular.*

1053. **Lisarda erecta**, sp. n.

Fuscous; hemelytra and abdomen beneath finely mottled with ochraceous; small luteous marginal spots to connexivum; legs ochraceous, annulated with fuscous, much as in the two preceding species; posterior lateral pronotal spines black, short, subacute, slightly recurved; apical spine to scutellum black, acute, almost perpendicular, a little recurved from beyond base; femora spined as in the preceding species.

Length 10 millim.

Hab. Burma (*Coll. Dist.*).

B. *Apical process to head recurved; apical segmental angles to connexivum spinous.*

1054. **Lisarda longispina**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 54.

Fuliginous-brown; antennæ, apical spine and a lateral fascia on each side of head above, two longitudinal discal fasciæ on anterior lobe of pronotum and its posterior margin in front of scutellum, connexivum, coxæ, legs and abdomen beneath ochraceous; base and apex of second joint of antennæ, apex of scutellar spine, and anterior and lateral angles of pronotum piceous; large incomplete spots to connexivum; apical areas of femora sometimes exhibiting two obsolete annulations, basal, subbasal and apical annulations to tibiæ umber-brown; abdomen beneath mottled with fuliginous, and with a central piceous macular line; rostrum pale brownish; apical prolongation of head long and recurved; lateral angles of pronotum long and directed backward; lateral spines to connexivum somewhat long and very distinct.

Length, ♀, 16 millim.

Hab. Burma; Karennee.

Genus VALENTIA.

Valentia, *Stål, Hem. Afr.* iii, p. 144 (1865); *id. En. Hem.* iv, p. 81 (1874).

Type, *V. apetala*, Vuill.

Distribution. Oriental Region.

Rostrum with the first joint equal to or slightly shorter than the second; head between eyes not porrectly produced, antennæ with the first joint longer than the head; anterior femora straight; anterior tibiæ not dilated but anteriorly compressed and ampliated, the apex broad; femora with a very distinct spine beneath near apices; prosternum anteriorly with two tubercles; posterior pronotal angles and apex of scutellum longly erectly spinous; connexivum with the posterior angles of the segments somewhat longly spinous.

1055. **Valentia apetala**, *de Vuill.* (Petalocheirus) *Ann. Soc. Ent. Fr.* 1864, p. 142, pl. i, f. 10; *Stål, En. Hem.* iv, p. 82 (1874); *Dist. A. M. N. H.* (7) x, p. 180 (1902).
Lisarda javana, *Mayr, Verh. z.-b. Ges. Wien*, xv, p. 437 (1865); *id. Reise Novara, Hem.* p. 148, f. 38 (1866).
Petalochirus funestus, *Walk. Cat. Het.* viii, p. 9 (1873).

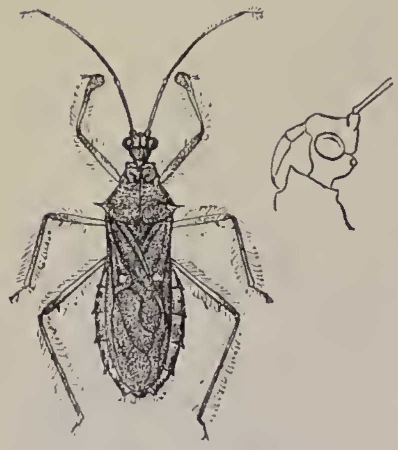

Fig. 166.—*Valentia apetala.*

Head, pronotum, scutellum, rostrum, sternum and coxæ fuscous: hemelytra, abdomen beneath and legs brownish-testaceous; a small rounded spot on inner margin of corium, spots to connexivum, basal areas of femora and subbasal annulations to tibiæ luteous or ochraceous; antennæ with the first joint ochraceous, its apex fuscous, second joint fuscous, its apex ochraceous; anterior area of head and the pronotum centrally finely sulcate; lateral pronotal spines a little obliquely upwardly directed; spines to connexivum backwardly directed; anterior tibiæ apically compressed and thickened for about one-third of their length; apical spine to scutellum long, erect.

Length 17 to 18 millim.

Hab. Sylhet (*Brit. Mus.*).—Malay Peninsula; Siam; Java.

1056. **Valentia compressipes**, *Stål, En. Hem.* iv, p. 82 (1874).

Allied to the preceding species (*V. apetala*), and differing by the anterior tibiæ which are compressed and ampliated for nearly their whole length, but very much broader at apex than at base; hemelytra much mottled with ochraceous; legs brownish-ochraceous; interior pale spot to corium subobsolete; antennæ with the first joint ochraceous, remaining joints fuscous; abdomen beneath pale ochraceous with a central discal fuscous line.

Length $16\frac{1}{2}$ to 18 millim.

Hab. Burma; Palon, Bhamo, Karennee, Teinzo (*Fea*), Rangoon (*Brit. Mus.*). Tavoy (*Brit. Mus.*).

Genus PETALOCHIRUS.

Petalocheirus, *Pal. Beauv. Ins.* p. 13 (1805).
Petalochirus, *Burm. Handb.* ii, p. 246 (1835); *Stål, Hem. Afr.* iii, p. 144 (1865); *id. En. Hem.* iv, p. 81 (1874).
Subg. Platychiria, *Herr.-Schäff. Wanz. Ins.* ix, p. 93 (1853).

Type, *P. variegatus*, Pal. Beauv., an Ethiopian species.

Distribution. Ethiopian and Oriental Regions.

Oblong-ovate; head deflected in front of eyes, antenniferous tubercles slightly prominent, eyes very prominent; rostrum with

the first and second joints about equal; antennæ with the first joint longer than the head; pronotum constricted before the middle, anterior lobe much narrower than the posterior lobe, anterior and posterior lateral angles spinous; scutellum with its apex spinous; connexivum with the posterior segmental angles more or less spinous; legs moderately long, anterior femora slightly thickened, anterior tibiæ strongly dilated on each side for their whole length, their apices above longitudinally impressed; prosternum anteriorly armed with two long porrect spines.

1057. **Petalochirus brachialis,** *Stål, Öfv. Vet.-Ak. Förh.* 1858, p. 444.

Brownish-ochraceous, hemelytra much mottled with luteous; head, anterior lobe of pronotum, scutellum, body beneath, rostrum and legs fuscous; apical areas of spines to pronotum, apex of scutellum and margins of connexivum, two small spots between eyes, two elongate spots at base of head, subquadrate spots to connexivum above and beneath, annulations to femora and intermediate and posterior tibiæ, spots to anterior tibiæ, apices of coxæ, and the trochanters luteous; antennæ with the first joint fuscous, remaining joints ochraceous, first joint with a central luteous annulation, apex of second joint fuscous; scutellum with two strong discal as well as long apical spines; anterior pronotal spines long, erect; lateral pronotal spines slightly recurved.

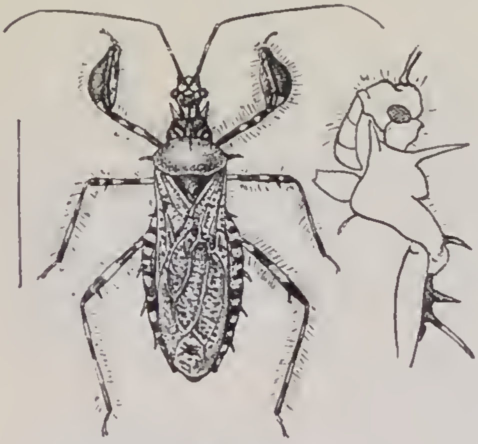

Fig. 167.—*Petalochirus brachialis.*

Length 12 to 17 millim.
Hab. Ceylon (*Green & Lewis*).

1058. **Petalochirus malayus,** *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 191; *Reut. Rev. d'Ent.* vi, p. 162 (1887); *Dist. A. M. N. H.* (7) x, p. 180 (1902).
Petalochirus vicinus, *Sign. Ann. Soc. Ent. Fr.* 1862, p. 126.
Petalochirus singularis, *Walk. Cat. Het.* viii, p. 10 (1873).

Ferruginous, palely sericeous; spots to connexivum above and beneath, a narrow basal and very broad medial annulations to posterior tibiæ, and very numerous macular markings to hemelytra luteous; pronotum with apical lateral spines fuscous, their apices ochraceous, posterior lateral spines long, erect, fuscous, their apices slightly directed forward; scutellum with a long erect spine; lateral abdominal spines about as long as scutellar spine;

anterior tibiæ strongly dilated; first joint of antennæ about as long as anterior femora.

Length 14 to 15 millim.

Hab. Burma; Palon (*Fea*).—Malay Peninsula.

The species identified by Walker as *P. malayus* (*loc. cit.* p. 9) is *P. brachialis*, Stål. Mr. Kirby was thus misled into including the first-named species in his Ceylonese enumeration (J. Linn. Soc., Zool. xxiv, p. 117, 1891).

1059. **Petalochirus burmanus,** *Dist. Ann. Soc. Ent. Belg.* 1903, p. 55.

Pale fuscous or brownish-ochraceous; hemelytra distinctly mottled with luteous and with a small discal fuscous spot, sometimes obsolete; connexivum luteous, with large black spots, each black spot containing a very small luteous spot; body beneath blackish, pilose; trochanters, legs and lateral marginal spots luteous; subbasal and apical areas to femora, anterior tibiæ, basal and apical annulations to intermediate and posterior tibiæ castaneous; antennæ piceous, first joint with a pale central annulation which in some specimens is obsolete; head prominently sulcated from between the eyes; pronotum with a distinct central narrow sulcation, anterior lobe moderately excavate, anterior angles spinously suberect ochraceous, posterior angles obliquely erect fuscous; connexivum moderately fuscously spinous at the posterior segmental angles, the spines directed backward; anterior tibiæ broadly dilated outwardly, moderately dilated inwardly; posterior femora with a distinct spine near apex.

Length $12\frac{1}{2}$ to 14 millim.

Hab. Burma; Bhamo (*Fea*).

A species distinguished by the moderately short spines to the pronotal lateral angles and to the abdominal margins.

1060. **Petalochirus indicus,** *Reut. Rev. d'Entom.* vi, p. 162 (1887).

Fuscous-ferruginous, fuscously pilose; head, pronotum and sternum flavous-sericeous; first joint of antennæ, apices of spines to pronotum, and lateral areas of scutellum black; gutta at base of head, apical spine to scutellum (apex excepted), marginal spots to connexivum and marginal spines before apices, numerous mottlings to hemelytra, trochanters, three annulations to femora and two annulations to tibiæ pale ochraceous; anterior tibiæ internally moderately dilated, externally from middle to base strongly dilated; anterior lobe of pronotum mutilated in typical specimen described; apical pronotal angles longly, erectly spinous.

Length, ♂, $13\frac{3}{4}$ millim.

Hab. Pondicherry (*Vienna Mus.*).

I have not seen this species.

Subfamily VII. ACANTHASPIDINÆ.

Acanthaspidina, *Stål, En. Hem.* iv, p. 4 (1874).

This large subfamily of the Reduviidæ differs principally from the Salyavatinæ in having the anterior tarsi three-jointed; the other characters are practically those detailed in the diagnosis of that subfamily. From the following subfamily (Piratinæ), the Acanthaspidinæ may be distinguished by the position of the transverse impression on the pronotum, which is situated, as an almost general rule, in or before the middle. I have in the synopsis of genera followed my previous practice in this work, of segregating them into divisions, which it is hoped will facilitate their recognition.

Division *PSOPHARIA.*

This division, at present represented by only two genera in British India, is a very distinct one. The head is long, the postocular area much longer than the anteocular; the rostrum has the first joint as long as the two apical joints together; the antennæ are somewhat remote from the eyes, and inserted near apex of head.

Synopsis of Genera.

A. Anterior trochanters unarmed; corium laterally sinuate near base .... Psophis, p. 243.
B. Anterior trochanters longly spined; lateral margins of corium straight .... Euvonymus, p. 244.

Genus **PSOPHIS.**

Psophis, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 53.

Type, *P. erythræa*, Stål.
Distribution. Oriental Region.
Head long, postocular much longer than anteocular portion, gradually narrowed and constricted from behind eyes; rostrum slender, first joint as long as the two apical joints together; antennæ with the first joint short, about one-half shorter than the head; pronotum medially constricted; legs slender, tibiæ without a spongy furrow; posterior tarsi with all the joints elongated.

1061. **Psophis erythræa,** *Stål, Ann. Soc. Ent. Fr.* 1863, p. 53.

Subsericeous; palely sanguineous; claval and subclaval areas (excluding base) fused into the whole membranal area, black; tibiæ (excluding bases) and first and second joints of antennæ (remaining joints mutilated in type) fuscous, base of first joint sanguineous; first antennal joint about as long as anteocular

portion of head; apex of scutellum forming a recurved obtuse spinous tubercle; membrane passing the abdominal apex.

Length 9 millim.

Hab. North India (*Brit. Mus.*).

1062. **Psophis consanguinea,** *Dist. Ann. Soc. Ent. Belg.* 1903, p. 56.

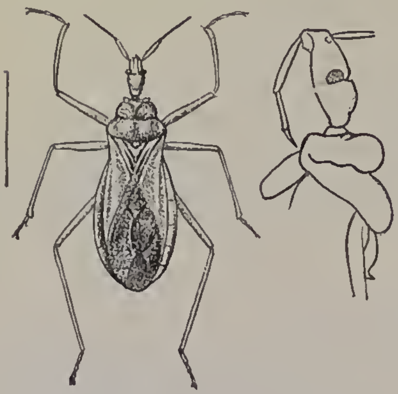

Fig. 168.—*Psophis consanguinea.*

Sanguineous; antennæ fuscous, the basal joint sanguineous; membrane pale fuscous. Anteocular portion of head with a faint central longitudinal ridge; anterior pronotal lobe distinctly excavated, disks of anterior and posterior lobes sulcately impressed; corium somewhat opaque and faintly pilose; legs moderately pilose; tarsi ochraceous.

Length 12 millim.

Hab. Burma; Karennee (*Fea*).

Genus EUVONYMUS, nov.

Type, *E. spiniceps*, Dist.

Distribution. Ceylon.

Head long, moderately slender, about as long as pronotum, transversely constricted behind eyes, postocular slightly longer than anteocular area, the first constricted at base; rostrum slender, first joint almost as long as remaining two together, second a little incrassated; antennæ with the first joint short, moderately incrassated, shorter than anteocular portion of head, second joint longer than first, shorter than third; pronotum medially constricted, anterior lobe sculptured, much narrower than posterior lobe; scutellum subtriangular, moderately elevated, its apex shortly, robustly, tuberculously, laterally produced; anterior coxæ long, furrowed, anterior trochanters armed with a long spine, anterior femora somewhat thickly incrassated, anterior tibiæ a little curved and spinously produced at apex, not provided with a spongy furrow; posterior tarsi a little elongated; lateral margins of abdomen dilated on each side.

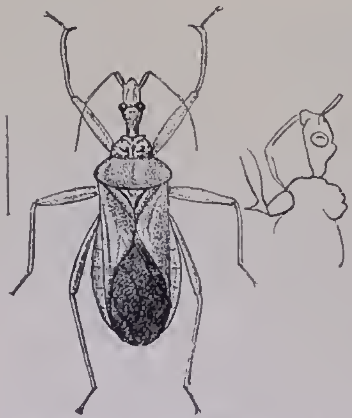

Fig. 169.—*Euvonymus spiniceps.*

1063. **Euvonymus spiniceps**, sp. n.

Sanguineous, somewhat opaque, eyes and membrane black; antennæ fuscous, first joint sanguineous; pronotum with the anterior lobe strongly sculptured, posterior lobe, scutellum, and corium smooth; posterior pronotal angles subprominent and subnodulose; scutellum foveate at base, its apex slightly tuberculously recurved; lateral margins of the corium straight; membrane just passing the abdominal apex.

Length $10\frac{1}{2}$ millim.

Hab. Ceylon; Pundaluoya (*Brit. Mus.*).

Division *EPIRODERARIA.*

Head beneath on each side, prosternum on each side, and coxæ more or less spinulose or tuberculose; femora more or less spinose.

Synopsis of Genera.

A. Head with the postocular area long, cylindrical, longer than anteocular portion; eyes and anteocular portion of head strongly spined .... CENTROCNEMIS, p. 245.

B. Head with the postocular area tumid, shorter than anteocular portion which is not spinous; first joint of antennæ not passing apex of head .... EPIRODERA, p. 247.

C. Head with the anteocular and postocular areas about equal in length, first joint of antennæ passing apex of head .... MARBODUS, p. 248.

Genus **CENTROCNEMIS.**

Centrocnemis, *Sign. Ann. Soc. Ent. Fr.* 1852, p. 545; *Stål, Hem. Afr.* iii, p. 121 (1865); *id. En. Hem.* iv, p. 66 (1874).

Type, *C. deyrollei*, Sign., a Malayan species.

Distribution. Oriental Region.

Body ovate, depressed, lateral margins of the abdomen dilated, generally longly spined, but sometimes only obscurely tuberculate; head long, postocular much longer than anteocular portion, which is armed with six spines—one near base of each antenna, one in front of each eye, and one at the upper surface of each eye; rostrum with the first joint almost as long as the two apical joints together; antennæ with the first joint about as long as anteocular portion of head; pronotum with the lateral angles strongly and broadly produced, their apices more or less spinous anterior lobe with two prominent discal spines; scutellum with the apex somewhat tuberculously produced.

A. *Abdominal margins obtusely spined; anterior pronotal lobe with two short tuberculous spines.*

1064. **Centrocnemis dearmata**, sp. n.

Dull brownish-ochraceous, mottled with fuscous; spots to connexivum above and beneath, apex of scutellum, apex of first joint to rostrum, apices and obscure medial annulations to femora, biannulations to anterior and intermediate tibiæ, and basal annulations to posterior tibiæ pale ochraceous; disk of sternum and some discal spots to membrane fuscous; first joint of antennæ a little thickened and granulate and about as long as anteocular portion of head: head, pronotum, and scutellum coarsely granulate; spines in front of eyes long, erect; posterior pronotal angles broad, sinuate, with three short broad dentations; lateral abdominal margins obtusely spined at segmental angles.

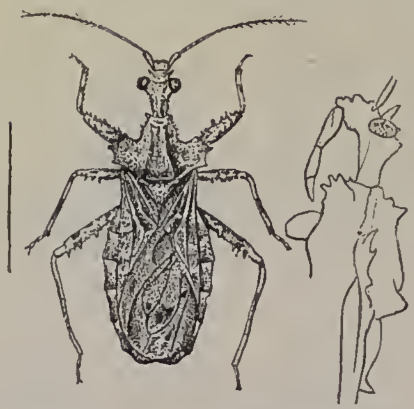

Fig. 170.—*Centrocnemis dearmata.*

Length 13 to 15 millim.

Hab. Ceylon; Colombo (*Lewis*), Maskeliya (*Green*).

B. *Abdominal margins longly spined; anterior pronotal lobe with two long discal spines.*

1065. **Centrocnemis ståli**, *Reut. Act. Soc. Sc. Fenn.* xii, p. 333 (1881).

Dull ochraceous; a transverse spot between eyes, a lateral line on each side behind eyes, a transverse discal fascia to pronotum (not reaching lateral angles), anterior area of pronotum, and corium (excluding veins and base) fuscous; membrane pale ochraceous, mottled with brown and fuscous; body beneath much suffused with fuscous; rostrum with base of first joint, a lateral vitta on each side of second joint, and the third joint fuscous; anterior and intermediate tibiæ pale ochraceous, biannulated with fuscous; anterior lobe of pronotum with two long obliquely erect spines on disk, the lateral angles to posterior lobe with four long spines and some smaller spines on posterior margin; connexivum mottled with brown, each segment with six spines of varying length.

Length $22\frac{1}{2}$ millim.

Hab. Assam; Khási Hills (*Chennell*). Sikhim (*Coll. Dist.*); Darjeeling (*Stockholm Mus.*).

Genus EPIRODERA.

Epirodera, *Westw. Trans. Ent. Soc.* iv, p. 247 (1847); *Stål, Hem. Afr.* iii, pp. 120 & 143 (1865); *id. En. Hem.* iv, p. 66 (1874).
Physoderes, *Westw. Journ. Proc. Ent. Soc.* p. cxv (1844).

Type, *E. notata*, Westw., a Malayan species.

Distribution. Oriental Region and Madagascar.

Body ovately-oblong; head before eyes longly produced, the anteocular considerably longer than the postocular portion, behind eyes convexly tumid; antennæ short, inserted remote from eyes, first joint not passing apex of head; rostrum with the second joint much the longest; pronotum constricted, the basal angles posteriorly lobately produced; scutellum with the apex considerably laterally produced; hemelytra with the membrane much larger than the coriaceous portion; anterior femora moderately incrassated, spinose beneath; anterior tibiæ without a spongy furrow.

1066. **Epirodera impexa**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 56.
Physoderus fuscus, *Bredd. SB. Ges. Naturf. Berl.* 1903, p. 126.

Head, pronotum, scutellum, basal angle of corium, body beneath, and legs dark obscure chocolate-brown; corium, membrane, and connexivum piceous; transverse spots to connexivum, basal and subapical annulations to femora and tibiæ, and apex of scutellum ochraceous; apical joint of antennæ (excluding base) luteous. Antennæ rather longly pilose; pronotum transversely constricted and trifoveate, prominently ridged at base, and with two central, discal, curved carinæ; lateral margins of anterior lobe serrate; apex of scutellum elongately lobate and sulcate; anterior femora robust, prominently spined beneath, intermediate and posterior femora moderately thickened and spined beneath.

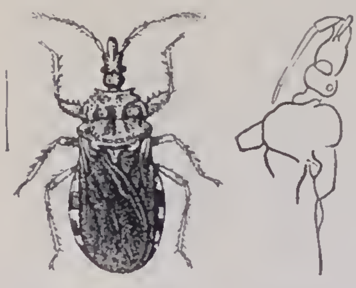

Fig. 171.—*Epirodera impexa.*

Length 9; breadth between pronotal angles 3 millim.

Hab. Burma; Karennee (*Fea*). Tenasserim; Meekalan (*Fea*).—Tonkin.

Herr Breddin, in the description of the above species, based on a female specimen from Tonkin, expresses his doubt that it is anything but *E. impexa.* I share his view, and have adopted his suggestion.

Genus **MARBODUS**, nov.

Type, *M. exemplificatus*, Dist.

Distribution. Ceylon.

Head broad, transverse, robust, spined on each side and beneath, transversely impressed between eyes, and with a very distinct narrow basal collar; antennæ with the first joint only about as long as anteocular area of head, but passing its apex; rostrum with the first joint irregularly incrassate, shorter than second; pronotum transversely constricted about middle, very broadly centrally, foveately, longitudinally sulcate, the anterior lobe strongly sculptured; anterior angles dentately prominent, posterior angles subprominent, lateral margins finely serrate; scutellum broad, subtriangular, apex moderately produced; abdomen considerably wider than the hemelytra, membrane not passing abdominal apex; anterior and intermediate tibiæ shorter than the femora, which are incrassated, strongly spined beneath, and finely serrate above; anterior and intermediate tibiæ with an apical spongy furrow.

1067. **Marbodus exemplificatus**, sp. n.

Pale ochraceous; posterior area of pronotum, scutellum, membrane, and spots to connexivum black; head, excluding base and apex, fuscous; antennæ fuscous, basal joint ochraceous, clavus and apex of rostrum piceous; head above rugulose, spinously rugose behind; pronotum with a very broad, foveate, central longitudinal sulcation containing a centrally-impressed punctate line, anterior lobe strongly sculptured, posterior lobe finely granulate; scutellum transversely rugulose, its lateral margins carinate, its apex a little elongated; connexivum broad, smooth; legs granulate, spines on under surfaces of anterior and intermediate femora very strong.

Fig. 172.—*Marbodus exemplificatus.*

Length $6\frac{1}{2}$ millim.

Hab. Ceylon; Pundaluoya (*Green*).

Division *REDUVIARIA.*

Eyes and ocelli large or very prominent; eyes extending transversely quite across the lateral areas of the head; pronotum broadly longitudinally impressed or sulcate.

Synopsis of Genera.

A. Anteocular portion of head tumid and sulcate . . . . ALLÆOCRANUM, p. 249.
B. Anteocular portion of head not tumidly elevate nor sulcate.
  a. Anterior femora unarmed . . . . REDUVIUS, p. 250.
  b. Anterior femora spinose . . . . GERBELIUS, p. 253.

Genus ALLÆOCRANUM.

Mecrocleptes, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 240; *id. En. Hem.* iv, p. 66 (1874); *Reut. Act. Soc. Sc. Fenn.* xii, p. 332 (1881), nom. præocc.
Subg. Allæocranum, *Reut. Act. Soc. Sc. Fenn.* xii, p. 332 (1881); *Leth. & Sev. Cat. Gén. Hém.* iii, p. 96 (1896).

Type, *A. biannulipes*, Montr. & Sign.

Distribution. Neotropical and Oriental Regions, the South Sea and Mascarene Islands.

Body oblong; head ovate, broad, anteocular and postocular portions of nearly equal length, anteocular portion tumid and very distinctly sulcate, base distinctly narrowed; eyes extending transversely across the lateral areas of the head; first and second joints of rostrum equal in length; first joint of antennæ a little longer than anteocular portion of head; pronotum unarmed, medially constricted and longitudinally sulcate; scutellum with the apex moderately laterally produced; anterior femora moderately incrassated; anterior tibiæ with a small spongy furrow.

1068. **Allæocranum biannulipes**, *Montr. & Sign.* (Opsicœtus) *Ann. Soc. Ent. Fr.* 1861, p. 69; *Champ. Biol. Centr.-Amer., Rhynch.* ii, p. 197, tab. xii, fig. 6 (1899); *Dist. A. M. N. H.* (7) x, p. 181 (1902).
Reduvius laniger, *Butl. A. M. N. H.* (4) xvii, p. 411 (1876).

Head, pronotum and scutellum pale castaneous; corium ochraceous, with a pale discal longitudinal streak, and a fuscous subclaval and subapical spot to corium; membrane black; legs ochraceous, femora annulated with castaneous; body beneath ochraceous, disk of sternum castaneous, connexivum faintly spotted with castaneous; pilose; legs, antennæ, and lateral margins of body longly pilose.

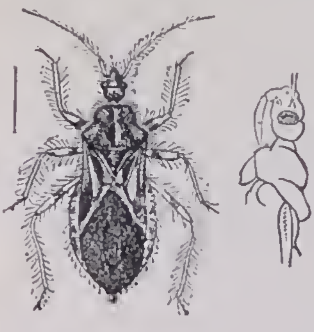

Fig. 173.—*Allæocranum biannulipes.*

Length 6 to 7 millim.

Hab. Ceylon (*Lewis*); Peradeniya (*Green*). Burma; Palon, Bhamo, Schwegoo-Myo (*Fea*). Tenasserim; Kawkareet, Thagata (*Fea*).—Also recorded from the Malayan Archipelago, South Sea Islands, Bourbon, Central America, and the Antilles.

1069. **Allæocranum quadrisignatum,** *Reut.* (Mecrocleptes) *Act. Soc. Sc. Fenn.* xii, p. 333 (1881).

Obscure piceous, fuscously hirsute; antennæ, pronotum at posterior angles, apex, carina, and recurved spines to scutellum, apices of femora, tibiæ, tarsi, and disk of abdomen beneath testaceous; hemelytra obscure sericeous-fuscous; base and small triangular apical spot to corium ochraceous.

Length 8½ millim.

Hab. Darjeeling (*Stockholm Mus.*).

I have not seen this species.

Genus REDUVIUS.

Reduvius, *Lamarck, Syst.* p. 294 (1801); *Latr. Hist. Nat.* iii, p. 249 (1802); *Burm. Handb.* ii, p. 234 (1835); *Spin. Ess. Hem.* p. 120 (1840); *Amy. & Serv. Hém.* p. 337 (1843); *Reut. Act. Soc. Sc. Fenn.* xix, no. 15, p. 3 (1892).

Opsicœtus, *Klug, Symb. Phys.* ii, fol. *e* (1830); *Stål, En. Hem.* iv, p. 66 (1874).

Holotrichius, part., *Herr.-Schäff. Wanz. Ins.* viii, p. 38 (1848).

Opinus, part., *Stål, Öfv. Vet.-Ak. Förh.* 1855, p. 40.

Varus, part., *Stål, Hem. Afr.* iii, p. 141 (1865).

Oplistopus, *Jakowl. Troudy Ent. Ross.* viii, p. 79 (1875).

Type, *R. personatus*, Linn.

Distribution. Palæarctic, Ethiopian, Oriental, and Australasian Regions.

Body moderately elongate; head oblong, anteocular portion of head longer than postocular portion; eyes large, completely extending across the lateral areas of the head; rostrum with the second joint much longer than the first; pronotum transversely constricted before the middle, the anterior lobe with a strong central sulcation or fissure, which is more broadly extended to disk of posterior lobe; anterior much shorter than the posterior lobe, which has its posterior margin moderately convex; scutellum with its apex spinose or acute; legs moderately long and slender; anterior femora unarmed; anterior tibiæ provided with a spongy furrow of variable dimensions.

A. *First joint of antennæ shorter than head.*

1070. **Reduvius pallipes,** *Klug* (Opsicœtus), *Symb. Phys.* ii, fol. *e*, pl. xix, f. 3 (1830); *Stål* (Opsicœtus), *En. Hem.* iv, p. 78 (1874); *Reut. Act. Soc. Sc. Fenn.* xix, no. 15, p. 22 (1892).

Reduvius thoracicus, *Stål, Öfv. Vet.-Ak. Förh.* 1855, p. 188.

Reduvius testaceus, *Fieb. Eur. Hem.* p. 156 (1861).

Head, pronotum, prosternum, lateral areas of meso- and metasterna, apical area of abdomen beneath, membrane, and rostrum dark fuscous-brown or piceous; corium, a lateral and apical spot to membrane, connexivum, body beneath, and legs stramineous; clavus (excluding apex), a central transverse fascia, connected

with base of membrane, dark fuscous-brown; first joint of antennæ about as long as anteocular area of head, second nearly three times in female and nearly four times in male longer than first; posterior lobe of pronotum anteriorly strongly strigose, anterior lobe strongly centrally sulcate; legs and antennæ pilose.

Length 14 to 18 millim.

Hab. Baluchistan; Quetta (*Brit. Mus.*).—A well-known Palæarctic species, distributed from Greece and Cyprus eastwards through Persia and Turkestan.

1071. **Reduvius cincticrus,** *Reut. Rev. d'Entom.* vi, p. 159 (1887); *id. Act. Soc. Sc. Fenn.* xix, no. 15, p. 34 (1892).

Fig. 174.—*Reduvius cincticrus.*

Head, pronotum, scutellum, and body beneath castaneous, the abdomen a little paler; anterior margin and lateral angles of pronotum, corium, spots to connexivum above and beneath, and legs luteous; a median macular fascia before apical angle of corium and a subapical annulation to femora castaneous: antennæ with the first and second joints pilose, remainder mutilated in type, first joint about as long as anteocular portion of head: pronotum centrally strongly sulcated; membrane fuscous.

Length 10 millim.

Hab. Sylhet (*Vienna Mus.*).

My thanks are due to Dr. Handlirsch, of the Vienna Museum, for allowing me to see the types of this and the following species.

1072. **Reduvius transnominalis,** nom. nov.

Reduvius debilis, *Reut. Rev. d'Entom.* vi, p. 160 (1887); *id. Act. Soc. Sc. Fenn.* xix, no. 15, p. 35 (1892), nom. præocc.

Brownish-ochraceous, shining; hemelytra dull ochraceous, opaque; head and posterior lobe of pronotum moderately castaneous; somewhat strongly pilose, especially the legs and antennæ; antennæ with the first joint about as long as the anteocular portion of head; pronotum centrally sulcate, the anterior lobe a little globose, lateral angles subprominent and very slightly recurved; membrane not reaching the abdominal apex.

Length 8 millim.

Hab. "N. India" (*Vienna Mus.*).

1073. **Reduvius knyvetti,** sp. n.

Head, anterior lobe of pronotum, scutellum, anterior areas of prosternum, the meso- and metasterna, and abdomen beneath

piceous; posterior lobe of pronotum, hemelytra, acetabula, coxæ, and legs luteous; a large central spot and a small subobsolete spot on each lateral area of posterior pronotal lobe, clavus (excluding base and a contiguous subclavate spot on corium), an elongate pyriform spot on posterior lateral margins of corium, veins and some suffusions to membrane, basal two-thirds of femora, and a broad subbasal annulation to tibiæ fuscous-brown; lateral margins and a central fascia to abdomen beneath luteous, the connexivum with segmental piceous spots; antennæ fuscous, first joint about as long as from insertion to base of head; pronotum with the anterior lobe strongly sculptured, shorter and much narrower than posterior lobe, which is broadly transversely foveately impressed on disk; rostrum with the first joint much shorter than second.

Length $14\frac{1}{2}$ millim.

Hab. Sikhim (*Knyvett*).

1074. **Reduvius esau**, sp. n.

Ochraceous, longly pilose, the legs very longly pilose on each side; hemelytra fuscous, the base and lateral margins ochraceous; apical area of abdomen beneath more or less infuscated; antennæ fuscous, pilose, base and apex of first joint ochraceous, first joint about as long as anteocular portion of head, second joint nearly three times longer than first; rostrum with the first joint a little shorter than second; pronotum with the anterior lobe shorter than the posterior and somewhat strongly sculptured, posterior lobe anteriorly finely transversely strigate, disks of both lobes sulcate.

Length 12 millim.

Hab. Ootacamand (*Atkinson, Brit. Mus.*).

B. *First joint of antennæ as long as head.*

1075. **Reduvius boyesi**, sp. n.

Very pale luteous; head, a **W**-shaped fascia at base of posterior pronotal lobe, scutellum, larger part of clavus, and obsolete indications of a transverse fascia to corium at base of membrane, piceous or fuscous; membrane fuscous, lateral marginal spots and apex creamy-white; femora with faint indications of a subapical fuscous annulation; apex of head luteous, rostrum fuscous; antennæ longly pilose, first joint about as long as head and scarcely shorter than second joint; first and second joints of rostrum subequal in length; ocelli very large; pronotum much attenuated anteriorly, the anterior lobe somewhat longitudinally striate, about as long as the posterior lobe; membrane passing the abdominal apex.

Length $11\frac{1}{2}$ millim.

Hab. Kumaun; Almorah (*Boyes, Brit. Mus.*).

C. *First joint of antennæ as long as pronotum.*

1076. **Reduvius angiportus**, sp. n.

Head, rostrum, body beneath, coxæ, trochanters and femora fuscous; anterior lobe of pronotum and scutellum dark castaneous, posterior pronotal lobe brownish-ochraceous; corium, tibiæ, and spots to connexivum above and beneath pale ochraceous; membrane pale brownish; bases and apices of tibiæ, and apices of tarsi, dark castaneous; antennæ brownish-ochraceous, pilose, apices of first and second joints and the whole of remaining joints fuscous, first joint about as long as pronotum, and as long as third joint, a little shorter than second; pronotum granulate, shortly pilose, anterior disk centrally broadly sulcate, posterior lateral angles shortly tuberculously produced; scutellum granulate, apical spine a little recurved; membrane considerably passing abdominal apex; anterior femora only very slightly thickened; veins to corium very prominent; body opaque above, moderately shining beneath.

Length 13 millim.

Hab. Bor Ghát (*Dixon*).

Mr. Dixon captured a single male specimen of this well-marked species.

Genus **GERBELIUS**.

Gerbelius, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 59.

Type, *G. typicus*, Dist.

Distribution. Oriental Region.

Head robust, moderately broad, anteocular shorter than the postocular area, which is moderately globose; eyes large, extending transversely across the lateral areas of the head; antennæ with the first and second joints shortest, first joint about reaching apex of head, second a little more than twice as long as first; rostrum with the first joint shorter than head, about as long as remaining joints together; pronotum with the anterior and posterior lobes about equally long, the anterior globose, irregularly excavate, with the anterior angles prominent, both lobes centrally transversely foveately impressed, posterior margin deflected; scutellum centrally sulcate, apex spinously produced and slightly ascending; abdomen broad, ovate, connexivum strongly exposed; femora minutely spined beneath.

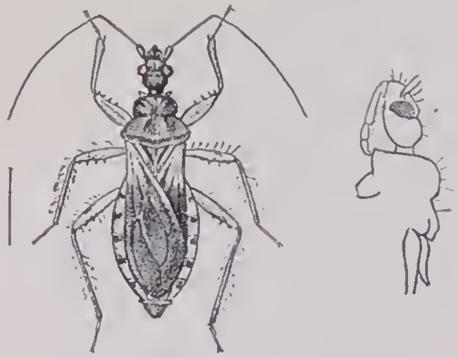

Fig. 175.—*Gerbelius typicus.*

1077. **Gerbelius typicus**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 59.

Head, pronotum, scutellum, membrane, and body beneath

brownish-piceous; first and second joints of antennæ, apex of scutellum, corium, connexivum, rostrum, and legs luteous; apical third of corium, spots to connexivum above and beneath, brownish-piceous; femora with a faint, obsolete, fuscous subapical annulation.

Length $8\frac{1}{2}$ to 9 millim.

Hab. Burma; Palon, Bhamo, Schwegoo-Myo (*Fea*).

1078. **Gerbelius ornatus,** *Dist. Ann. Soc. Ent. Belg.* 1903, p. 59.

Brownish-piceous; femora pale brownish, their bases, the tibiæ, tarsi, antennæ, rostrum, a large spot occupying the claval apices and adjacent area of corium, apical angle of corium, a small adjacent spot on membrane, and the apex of scutellum pale ochraceous; femora finely but distinctly spined beneath, connexivum with pale narrow transverse incisural spots.

Var. Apical angle of corium concolorous, piceous; connexivum brownish-ochraceous.

Length $8\frac{1}{2}$ to 10 millim.

Hab. Bor Ghát (*Dixon*). Ceylon (*Green*).

Division *ACANTHASPISARIA.*

This division differs from the *Reduviaria* in having the eyes and ocelli small or mediocre; eyes sometimes large, but then never extending transversely across the lateral areas of the head; the pronotum is not broadly longitudinally compressed or sulcate.

Synopsis of Genera.

A. Pronotum and sternum lævigate or rugulose, not granulate.
  a. Eyes of ordinary size, not unduly prominent.
    a. Posterior tarsi with the second joint not longer than the third .... ACANTHASPIS, p. 257.
    b. Posterior tarsi with the second joint longer than the third.
      a'. Prosternum normal, not tuberculously or spinously produced on each side of central sulcation .... PASIRA, p. 254.
      b'. Prosternum on each side of central sulcation tuberculously or spinously produced .... PASIROPSIS, p. 255.
  b. Eyes very large and prominent .... INARA, p. 273.
B. Pronotum and sternum distinctly granulate.. EDOCLA, p. 274.

Genus **PASIRA.**

Pasira, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 190; *id. Hem. Afr.* iii, p. 122 (1865); *id. En. Hem.* iv, p. 65 (1874).

Aphleps, *Fieb. Verh. z.-b. Ges. Wien,* 1870, p. 243.

Mastacocerus, *Reut. Act. Soc. Sc. Fenn.* xii, p. 323 (1881).
Ceromastix, *Bergr. Rev. d'Ent.* xiii, p. 163 (1894).

Type, *P. basiptera*, Stål, a Palæarctic species.

Distribution. Palæarctic, Ethiopian, and Oriental Regions.

Head behind eyes somewhat prominent, narrowed at base, before eyes conically produced; antennæ with the first joint not reaching apex of head, second joint about twice as long as first; rostrum with the first joint shorter than the second; pronotum unarmed, medially constricted, posterior angles not produced; scutellum with the apex spinously laterally produced; anterior femora moderately incrassated, legs unarmed; anterior tibiæ provided with a spongy furrow, posterior tarsi with the first joint short, second and third joints subequal.

1079. **Pasira perpusilla**, *Walk.* (Reduvius) *Cat. Het.* vii, p. 196 (1873); *Dist. A. M. N. H.* (7) x, p. 295 (1902).
Mastacocerus humeralis, *Reut. Act. Soc. Sc. Fenn.* xii, p. 324 (1881).

Piceous-brown; apical area of clavus and spots to connexivum above and beneath luteous; first joint of antennæ moderately incrassated and not reaching apex of head; anterior angles of pronotum a little prominent, anterior lobe slightly sculptured; scutellum foveate on disk; membrane passing abdominal apex; connexivum prominent; anterior femora robust, apically narrowed; body and legs sparingly and finely tomentose.

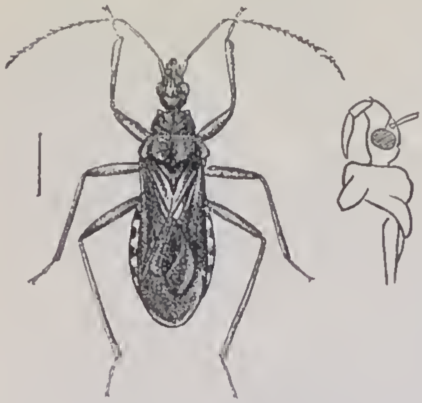

Fig. 176.—*Pasira perpusilla.*

Var. Base of corium luteous.

Length 6 to $6\frac{1}{2}$ millim.

Hab. North Bengal (*Campbell, Brit. Mus.*). Burma; Rangoon, Palon, Mandalay (*Fea*).

I am under obligation to Dr. Meinert, of the Copenhagen Museum, for enabling me to examine Reuter's type.

Genus PASIROPSIS.

Pasiropsis, *Reut. Act. Soc. Sc. Fenn.* xii, p. 329 (1881).

Type, *P. bipustulata*, Reut., from Borneo.

Distribution. Oriental Region.

Head broad, posteriorly narrowed, before eyes obliquely deflected; rostrum with the first and second joints subequal in length; antennæ with the first joint a little incrassated, about as long as from insertion to base of head, much shorter than second joint; pronotum with the anterior lobe narrow, convex, moderately

sculptured, posterior lobe with the lateral angles moderately produced and acuminate, its disk centrally sulcate; scutellum produced in an oblique semi-erect spine; prosternum on each side of central sulcation tuberculously or spinously produced; metasternum and abdomen beneath centrally obtusely carinate; anterior tibiæ with an apical spongy furrow.

1080. **Pasiropsis notata**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 56.

Piceous, opaque; corium and membrane bronzy; a large ochraceous spot near inner angle of corium, almost reaching the lateral margin; incisural spots to connexivum both above and beneath, and a subapical annulation to intermediate and posterior femora, ochraceous; tibiæ piceous-brown. Posterior angles of pronotum obtusely directed backward; apex of scutellum obliquely spinously ascending; posterior lobe of pronotum with a distinct narrow central sulcation; anterior prosternal process with its spinous tubercles well developed.

Fig. 177.—*Pasiropsis notata.*

Length $9\frac{1}{2}$ millim.
Hab. Burma; Karennee (*Fea*).

1081. **Pasiropsis maculata**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 56.

Piceous, opaque; corium and membrane bronzy brown; apex of clavus pale brownish; spots to connexivum at segmental incisures above and beneath ochraceous; legs and rostrum piceous-brown. Posterior angles of pronotum subacute and slightly directed backward; apex of scutellum spinously obliquely ascending; anterior prosternal process well developed, the spinous tubercles prominent.
Length 8 millim.
Hab. Burma; Karennee, Palon; Tenasserim; Meetan (*Fea*).

1082. **Pasiropsis marginata**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 57.

Piceous, moderately shining; corium, membrane, and legs piceous-brown; connexivum and abdomen beneath ochraceous; posterior angles of the pronotum obtusely directed backward, posterior pronotal lobe centrally profoundly sulcate; apex of

scutellum strongly spinously produced, but very slightly ascending; anterior prosternal process well developed.

Length 7 millim.

Hab. Burma; Karennee (*Fea*).

1083. **Pasiropsis nigerrima,** *Bergr. Bull. Soc. Ent. Fr.* 1896, p. 9.

Piceous-black, shining; hemelytra opaque; apices of rostrum and tibiæ and the tarsi brownish-ochraceous; anterior pronotal lobe moderately sculptured, posterior pronotal angles short, obtuse, central sulcation to posterior lobe distinct; connexivum finely granulate and brownish-piceous; legs dark castaneous, anterior legs distinctly pilose beneath.

Length 9 millim.

Hab. Bombay (*Coll. Bergroth*).

Genus **ACANTHASPIS.**

Platymeris, part., *Burm. Handb.* ii, p. 233 (1835).
Acanthaspis, *Amy. & Serv. Hém.* p. 336 (1843); *Stål, Hem. Afr.* iii, pp. 122 & 126 (1865); *id. En. Hem.* iv, p. 65 (1874).
Tetroxia, *Amy. & Serv. Hém.* p. 334 (1843).
Mardania, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 189.
Subg. Plynus, *Stål, En. Hem.* iv, p. 71 (1874).

Type, *A. flavoraria*, Hahn, a Javan species, confused with *A. sexguttata*, Fabr., by Amyot and Serville.

Distribution. Oriental and Ethiopian Regions.

Body oblong-ovate; head oval or oblong, ante- and postocular areas generally about equal in length; rostrum with the first and second joints variable in length, usually about equal in length; pronotum constricted before middle, in some few instances behind middle, anterior lobe without spines, posterior lobe sometimes discally spined and usually with the lateral angles prominent either as spines or tubercles; scutellum with the apex longly spinously produced and generally obliquely ascendant; anterior femora moderately incrassated, unarmed; anterior tibiæ provided with an apical spongy furrow.

I. First joint of antennæ passing apex of head.

A. *Posterior lobe of pronotum with two long discal spines.*

a. *First and second joints of rostrum equal or subequal in length.*

a. Legs not annulated, almost unicolorous.

1084. **Acanthaspis quinquespinosa,** *Fabr.* (Reduvius) *Spec. Ins.* ii, p. 382 (1781); *id.* (Reduvius) *Mant.* ii, p. 313 (1787); *Wolff* (Reduvius), *Ic. Cim.* i, p. 39, f. 39 (1800); *Stål, En. Hem.* iv, p. 72 (1874).

Black; the four posterior spines to pronotum—two lateral, two discal—and their areas, a basal and a transverse discal spot to corium, and spots to connexivum above and beneath luteous; legs and antennæ castaneous; first and second joints of rostrum subequal in length; basal joint of antennæ about as long as head; anterior lobe of pronotum strongly sculptured, posterior lobe rugose, with a long lateral spine on each side, and with two shorter erect discal spines between them; scutellar spine long, obliquely ascending.

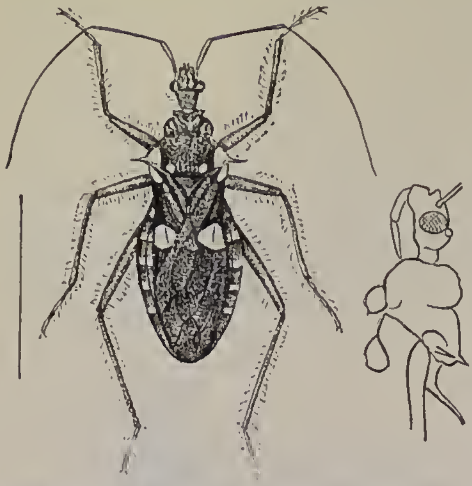

Fig. 178.—*Acanthaspis quinquespinosa.*

Length $15\frac{1}{2}$ to 19 millim.

Hab. Assam; North Khási Hills (*Chennell*), Margherita (*Doherty*). Bengal; Ranchi (*Irvine*). Bombay (*Leith*), Bor Ghát (*Dixon*). Ceylon (*Green*). Burma; Palon (*Fea*).

1085. **Acanthaspis xerampilina**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 57.

Dull reddish; eyes, scutellum excluding apex, clavus excluding base, a large subclaval spot to corium which does not reach base but posteriorly joins basal angle of membrane and is continued along the greater part of apical margin of corium, membrane, and lateral areas of sternum piceous; pronotum with the lateral angles produced into long acute spines directed backward, and with two long erect spines near the posterior margin, anterior lobe sculptured, anterior angles tuberculously prominent, posterior lobe very finely granulate; scutellar spine long, obliquely erect; membrane passing apex of abdomen; head sulcated between eyes; first and second joints of rostrum subequal in length; first joint of antennæ about as long as head.

Length 19; breadth between pronotal angles $6\frac{1}{2}$ millim.

Hab. Burma (*Vigors*).

b. Legs with dark annulations.

1086. **Acanthaspis sericata**, sp. n.

Ochraceous, sericeous; head somewhat piceous; antennæ with the first and second joints brownish-ochraceous, remainder fuscous, apex of second and sometimes apical area of first joint fuscous; pronotum with a piceous spot at base, the lateral angles longly spinous and two long erect discal spines between them; scutellum

piceous, apex of apical spine luteous; hemelytra much mottled with fuscous, the venation and transverse vein-like markings to corium luteous; membrane with the basal venation fuscous, the apical luteous; connexivum above and beneath spotted with black; body beneath black; apices of coxæ and legs pale ochraceous, annulated with piceous; rostrum with the base of first joint and apex of second piceous; rostrum with the first and second joints subequal in length; first joint of antennæ about as long as head.

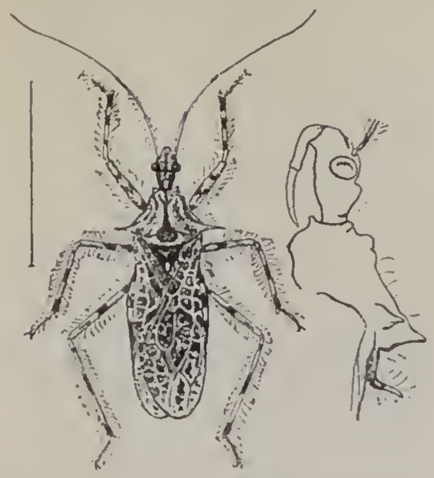

Fig. 179.—*Acanthaspis sericata.*

Length 16 to 20 millim.

Hab. Ceylon; Maskeliya (*Green*).

b. *First joint of rostrum a little longer than second.*

1087. **Acanthaspis subrufa,** *Dist. A. M. N. H.* (7) xi, p. 354 (1903).

Black; posterior lobe of pronotum, a large spot before apex of corium (extending from lateral to apical margins), connexivum, rostrum, legs, and lateral margins of abdomen reddish-ochraceous; rostrum with the first joint a little longer than the second; anterior pronotal lobe strongly sculptured, posterior lobe with two strong ascendant spines near posterior margin, and the lateral angles strongly spinously produced, the spines directed a little backward; scutellar spine long, laterally produced; antennæ mutilated.

Length 17; breadth between pronotal angles 6 millim.

Hab. Bangalore (*Atkinson Coll., Brit. Mus.*).

B. *Posterior lobe of pronotum with two short but prominent discal tubercles.*

a. *Pronotum unicolorous, unspotted.*

1088. **Acanthaspis fulvipes,** *Dall.* (Platymeris) *Tr. Ent. Soc.* 1850, p. 6, pl. ii, f. 3; *Stål, Ann. Soc. Ent. Fr.* 1863, p. 49; *Dist. A. M. N. H.* (7) x, p. 183 (1902).
Acanthaspis quadrinotata, *Walk. Cat. Het.* vii, p. 175 (1873).
Acanthaspis quadristillatus, *Stål, MS.*

Piceous; antennæ, a spot behind each eye on side of ocelli, rostrum, legs, and central disk of abdomen reddish-brown; a basal spot and large transverse spot behind middle of corium, and spots to connexivum above and beneath, ochraceous; apices of femora and

the tibiæ testaceous; first joint of rostrum distinctly longer than the second; first joint of antennæ about as long as head; pronotum with the anterior lobe moderately sculptured and deeply centrally foveate on its posterior margin; posterior lobe obsoletely rugulose, its lateral angles shortly acutely spinous, their apices recurved; scutellar spine long, obliquely ascendant.

Length 25 to 26 millim.

Hab. Bhutan (*Brit. Mus.*). Sikhim. Assam; Sibságar (*Ind. Mus.*). East Bengal (*Coll. Dist.*).

A specimen in the British Museum, examined by Stål, bears his own label *A. quadristillatus*, Stål.

1089. **Acanthaspis bistillata,** *Stål, Öfv. Vet.-Ak. Förh.* 1858, p. 443: *Reut. Act. Soc. Sc. Fenn.* xii, p. 327 (1881); *Dist. A. M. N. H.* (7) x, p. 183 (1902).
Acanthaspis pictipes, *Walk. Cat. Het.* vii, p. 176 (1873).
Var. Acanthaspis picina, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 49.

Black; corium with a large ochraceous transverse spot behind middle; apices of femora and the tibiæ and tarsi pale sanguineous: connexivum unicolorous; first joint of rostrum distinctly longer than the second; first joint of antennæ a little longer than the head; pronotum with the anterior lobe moderately sculptured, posterior lobe obsoletely rugulose, posterior lateral angles spinously produced and recurved, posterior disk with two short but prominent tubercles; scutellar spine long, obliquely ascendant.

Length 22 to 23 millim.

Hab. Ceylon; Peradeniya (*Green*). Andaman Islands (*fide Reuter*).

Walker, in his description of his *A. pictipes*, writes:—"Fore wings with a large round luteous spot near the base." He should have written "near apex." Stål's *A. picina*, the type of which is in the British Mnseum, is a varietal form in which the legs have the red markings very obscure.

1090. **Acanthaspis luteipes,** *Walk. Cat. Het.* vii, p. 175 (1873).
Acanthaspis discifera, *Stål, En. Hem.* iv, p. 73 (1874).

Dull purplish-brown; head with a spot on each side of ocelli, antennæ, rostrum, a large transverse spot almost crossing corium at inner angle, spots to connexivum above and beneath, disks of meso- and metasterna, abdomen beneath, coxæ, trochanters, and legs pale ochraceous; head with a distinct longitudinal incision between eyes; first joint of antennæ about as long as head; first joint of rostrum shorter than the second; pronotum with the anterior lobe moderately sculptured and centrally sulcate, posterior lobe very obsoletely rugulose, lateral angles subacutely prominent, posterior disk with two small tubercles; scutellar spine obliquely ascending.

Length 17 to 18 millim

Hab. "North Hindostan" (*Brit. Mus.*). Bangalore (*Coll. Dist.*).

In some specimens of this species the discal tubercles to the posterior pronotal lobe are barely discernible.

b. *Pronotum with anterior and posterior lobes differently coloured.*

a. Scutellar apical spine long, porrect.

1091. **Acanthaspis porrecta**, sp. n.

Closely allied to the preceding species (*A. luteipes*), and principally differing by the structure of the scutellum, which has the apical spine very long and robust, not obliquely ascendant, but laterally porrect; the head, anterior lobe of pronotum, base of scutellum, and hemelytra (excluding spots) are piceous.

Length 18 millim.

Hab. Ceylon; Peradeniya (*Green*).

b. Scutellar apical spine obliquely ascendant.

1092. **Acanthaspis tavoyana**, *Dist. A. M. N. H.* (7) xi, p. 355 (1903).

Black; head, anterior lobe of pronotum, lateral and posterior margins of pronotum (the last arcuated and inwardly bicurved), lateral margins of corium (widened near base and only extending about two-thirds from base), a small spot on apical margin, connexivum, a spot on each side of head beneath behind eyes, and lateral margins of sternum and abdomen dull red; first joint of rostrum a little longer than the second; anterior pronotal lobe strongly sculptured, posterior lobe finely rugulose, the lateral angles spinously produced and directed a little backward, and with two short tubercles on posterior margin; scutellar spine obliquely ascendant.

Length 19; breadth between pronotal angles 6 millim.

Hab. Pegu; Tavoy (*Atkinson Coll., Brit. Mus.*).

1093. **Acanthaspis biligata**, *Walk.* (Reduvius) *Cat. Het.* vii, p. 195 (1873); *Dist. A. M. N. H.* (7) x, p. 184 (1902).

Ochraceous; head, anterior lobe of pronotum, anterior lateral margins, two small discal spots, a larger central basal spot, and hind margin of posterior lobe, scutellum (excluding obliquely ascendant apical spine), clavus (excluding margins), subclaval area, a subbasal spot, two small central spots and apex of corium, basal and apical areas of membrane (excluding veins), spots to connexivum above and beneath, body beneath, rostrum, antennæ, and basal, apical, and central annulations to femora and tibiæ fuscous; first joint of rostrum distinctly longer than second; basal joint of antennæ slightly longer than head; pronotum with the anterior lobe very strongly sculptured, posterior lobe finely rugulose, the lateral angles spinously produced and recurved, posterior disk with two short but prominent tubercles.

Length 20 millim.

Hab. Burma; Karennee (*Fea*).—Siam (*Brit. Mus.*).

c. Pronotum palely marked or spotted.

a. Legs entirely, or almost, unicolorous.

1094. **Acanthaspis flavipes**, *Stål, Öfv. Vet.-Ak. Förh.* 1855, p. 187; *Reut. Act. Soc. Sc. Fenn.* xii, p. 325 (1881).
Acanthaspis quinquespinosa, var. flavipes, *Stål, En. Hem.* iv, p. 72 (1874).
Var. Acanthaspis geminata, *Reut. Act. Soc. Sc. Fenn.* xii, p. 325 (1881).

Piceous or chocolate-brown; antennæ, posterior area and lateral angles of pronotum, basal angles and a large transverse spot beyond middle of corium, spots to connexivum above and beneath, rostrum, legs, central ridge to abdomen, and apex of scutellar spine luteous; rostrum with the first and second joints subequal in length; first joint of antennæ about as long as head; pronotum with the anterior lobe strongly sculptured, the posterior lobe rugulose, lateral angles spinously produced and recurved, posterior disk with two distinct and prominent tubercles; scutellar spine obliquely ascendant.

Var. The luteous area of the posterior pronotal lobe broken up into four spots.

Length $15\frac{1}{2}$ to 16 millim.

Hab. Sind (*Coll. Dist.*). Himalayas (*fide Reuter*). Bombay (*Coll. Dist.*).

1095. **Acanthaspis angularis**, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 188; *Dist. A. M. N. H.* (7) x, p. 184 (1902).
Acanthaspis dubius, *Walk. Cat. Het.* vii, p. 177 (1873).
Var. Acanthaspis helluo, *Kirby* (*nec Stål*), *J. Linn. Soc., Zool.* xxiv, p. 114 (1891).

Piceous, or piceous-brown, lateral posterior angular areas of pronotum, a large transverse spot beyond middle of corium, spots to connexivum above and beneath, and legs ochraceous or luteous; first and second joints of rostrum subequal in length, first joint of antennæ about as long as head; pronotum with the disk sulcate, anterior lobe strongly sculptured, hind lobe posteriorly finely rugulose, lateral angles spinously produced and recurved; scutellar spine obliquely ascendant and recurved.

Var. Corium with a luteous spot at base.

Length 15 to $17\frac{1}{2}$ millim.

Hab. Bombay (*Leith*). Madras (*Coll. Dist.*). Ceylon; Peradeniya, Chilaw (*Green*).

1096. **Acanthaspis vincta**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 57.

Piceous-black; basal joint of antennæ, the lateral angular areas and two central basal spots to pronotum, basal angle, and a large spot near inner angle of corium reaching lateral margin and also the basal margin of membrane, upper surface of abdomen and

connexivum, legs and second joint of rostrum reddish-ochraceous; large spots to connexivum and apex of abdomen above piceous-black; basal areas of femora piceous-brown; antennæ (excluding basal joint) pale brownish; pronotum with the lateral angles spinously prominent, the angles slightly directed backward; posterior pronotal lobe faintly centrally sulcate, posterior disk with two short but prominent tubercles, apex of scutellum strongly spinously produced and obliquely erect; head distinctly sulcate between the eyes; first and second joints of rostrum subequal in length.

Length 21; breadth between pronotal angles $6\frac{1}{2}$ to 7 millim.

Hab. Burma; Bhamo, Teinzo (*Fea*).

1097. **Acanthaspis gulo**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 50.

Black; head, pronotum, corium, and connexivum above and beneath pale sanguineous; a spot on head at area of ocelli, three fasciate spots anteriorly confluent on posterior lobe of pronotum, posterior pronotal margin, scutellum (excluding apex of apical spine), clavus, a large subclaval spot extending to base of membrane, and apex of corium, membrane, and body beneath black or piceous; rostrum with the first and second joints subequal in length; first joint of antennæ about as long as head; pronotum with the anterior lobe strongly sculptured, posterior lobe rugulose, finely centrally sulcate, lateral angles prominently spinous, their apices recurved, posterior disk with two short but distinct tubercles; scutellar spine obliquely ascendant, black, with its apex reddish.

Var. Apices of femora and the tibiæ and tarsi pale sanguineous.

Length 17 to 20 millim.

Hab. Sylhet (*Stockholm Mus.*). Tavoy (*Coll. Dist.*).—Malay Peninsula.

b. Apices of femora and tibiæ palely coloured.

1098. **Acanthaspis helluo**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 50.

Black; lateral angles of pronotum and two spots between them, base and a transverse subarcuated spot beyond middle of corium, spots to connexivum above and beneath, apices of femora and tibiæ and the tarsi pale sanguineous; first and second joints of rostrum subequal in length; first joint of antennæ a little longer than head; pronotum with the anterior lobe moderately sculptured, posterior lobe almost smooth, the lateral angles subspinously produced, their apices slightly recurved, posterior disk with two short but distinct tubercles; scutellar spine long and obliquely ascendant.

Length 20 to 22 millim.

Hab. Sylhet (*Brit. Mus.*). Assam; Khási Hills (*Chennell*), Nága Hills (*Doherty*).

1099. **Acanthaspis pernobilis,** *Reut. Act. Soc. Sc. Fenn.* xii, p. 325 (1881).

Black, sparsely fuscously pilose, opaque; four small spots on posterior lobe of pronotum, one at each lateral angle and two medial at basal tubercles, an arcuate transverse fascia on the corium, arcuated anteriorly, concave between lateral margins and exterior angle, interior basal area, membrane, apical segmental fasciæ to connexivum and apices of femora red or reddish-ferruginous; apices of tibiæ anteriorly broadly and the tarsi ferruginous; first joint of antennæ as long as posterior lobe of pronotum; pronotum with the posterior lateral angles shortly dentately produced, posterior disk with two distinct tubercles; apex of scutellar spine ferruginous.

Length 22½ millim.

Hab. Darjeeling (*Stockholm Mus.*).

I have not seen this species.

c. Legs with dark annulations.

1100. **Acanthaspis zebraica,** sp. n.

Piceous; first and second joints of antennæ, four spots at base of pronotum (two angular and two central), a basal and a large angulately transverse spot (sinuated anteriorly and posteriorly) to corium, spots to connexivum above and beneath, and legs luteous; a broad submedial annulation to femora and extreme bases of tibiæ piceous; apex of membrane pale fuliginous; rostrum with the first and second joints subequal in length, first joint piceous, remaining joints castaneous; basal joint of antennæ distinctly longer than head; pronotum with the anterior lobe prominently sculptured, posterior lobe finely and obscurely rugulose, the lateral angles tuberculously subprominent; posterior disk with two short distinct tubercles; scutellar spine obliquely ascendant, its apex castaneous.

Length 19 millim.

Hab. Burma; Palon (*Fea*).

C. *Posterior lobe of pronotum discally unarmed.*

a. *Lateral angles of pronotum prominent, spinous, or tubercular.*

a. Pronotum unicolorous, unspotted.

a'. Legs unicolorous.

1101. **Acanthaspis rugulosa,** *Stål, Ann. Soc. Ent. Fr.* 1863, p. 49; *id. En. Hem.* iv, p. 73 (1874).

Piceous; a large spot almost crossing corium at inner angle pale ochraceous; first and second joints of rostrum almost subequal in length; first joint of antennæ considerably shorter than head; pronotum with the anterior lobe strongly sculptured, the

posterior lobe rugose, lateral angles dentately prominent, posterior disk unarmed; connexivum somewhat strongly recurved; scutellar spine obliquely ascendant.

Length 18 to 20 millim.

Hab. Bengal (*Brit. Mus.*). Bombay (*Leith*).

Stål, in his 'Enumeratio Hemipterorum,' arranges this species among those which have the disk of the posterior lobe of pronotum tuberculate. Of the tuberculation in this species, he writes, "minutissimo, granuliformi, ægre distinguendo,." They are practically absent and too obsolete for any classificatory purpose.

1102. **Acanthaspis siva**, sp. n.

Black or dark piceous; corium with a basal angular and a subapical irregularly rounded creamy-white spot; membrane with the apex creamy-white, enclosing a fuliginous spot; connexivum above and beneath spotted with pale ochraceous; antennæ with the basal joint black, strongly pilose, remaining joints brownish-ochraceous, first joint about as long as head; rostrum with the first joint slightly longer than second; pronotum with the anterior lobe moderately sculptured, posterior lobe rugulose, distinctly centrally sulcate, lateral angles dentately produced and recurved, disk unarmed; scutellar spine obliquely ascendant; legs strongly pilose.

Length 18 millim.

Hab. North Central Provinces (*Coll. Dist.*).

b'. Femora and tibiæ differently coloured.

1103. **Acanthaspis megaspila**, *Walk. Cat. Het.* vii, p. 176 (1873).

Black; corium (excluding base and apical angles) and a subclaval streak luteous; rostrum, coxæ, trochanters and femora pale castaneous, tibiæ and tarsi ochraceous; head with two small ochraceous spots behind eyes; antennæ pilose, with the first joint castaneous, second brownish-ochraceous, remainder fuscous, first joint a little shorter than head; rostrum with the first snd second joints subequal in length; pronotum with the anterior lobe strongly sculptured, the posterior lobe rugose, its lateral angles shortly dentately produced, posterior disk unarmed; scutellar spine obliquely ascendant; margins, abdomen beneath, and legs longly pilose.

Length 19 to 20 millim.

Hab. "Hindostan" (*Whitehill, Brit. Mus.*). Bor Ghát (*Dixon*).

The puncture made by this Reduviid causes acute pain with burning sensation, the symptoms of the case very much resembling those produced by the bite of the venomous reptile *Trimeresurus anamallensis.* The smarting sensation, if immediately attended to, subsides in one or two hours; but the whole hand becomes painfully swollen if the punctures occur on a finger, the wound taking about ten days to heal. (*R. M. Dixon.*)

c'. Femora black, their apices and the tibiæ pale.

1104. **Acanthaspis apicata**, *Dist. A. M. N. H.* (7) xi, p. 354 (1903).
Tetroxia (Acanthaspis) nigricollis, *Bredd. SB. Ges. Naturf. Berl.* 1903, p. 118.

Piceous; a spot at base and a much larger spot near apex of corium, large spots to connexivum (above and beneath), tibiæ, tarsi, and apices of femora luteous; apex of membrane broadly greyish, with a small apical fuscous spot; first joint of rostrum a little longer than the second; anterior lobe of pronotum sculptured, posterior lobe finely granulate, with a narrow central longitudinal impression, lateral angles moderately prominent, their apices a little recurved, posterior disk unarmed; scutellar spine long, very slightly ascendant; legs longly pilose; antennæ mutilated in specimen described.

Length 17; breadth between pronotal angles 5 millim.

Hab. Kashmir (*Hügel*); Ootacamand (*Atkinson Coll., Brit. Mus.*). Sangli (*Bredd.*).

d'. Legs pale, femora darkly annulated.

1105. **Acanthaspis binghami**, *Dist. A. M. N. H.* (7) xi, p 354 (1903).

Black; a spot behind eyes, a spot at base of corium and a much larger one before apex (the last a little excavate anteriorly and posteriorly), spots to connexivum above and beneath, and the legs luteous; a broad annulation to femora before apex and extreme bases of tibiæ black; first joint of rostrum a little longer than the second; antennæ and legs pilose, first joint about as long as head, anterior lobe of pronotum sculptured, posterior lobe granulate, with a distinct central longitudinal impression, lateral angles subprominent, posterior disk unarmed; scutellar spine long, slightly ascendant.

Length 18; breadth between pronotal angles 5 millim.

Hab. Upper Burma; Ruby Mines District (*Bingham, Brit. Mus.*).

b. Pronotum with the lateral angles palely coloured.

1106. **Acanthaspis succinea**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 58.

Head, pronotum, scutellum and sternum piceous; clavus, a claval marginal fascia to corium, not reaching base, membrane and abdomen beneath brownish-piceous; lateral angles to pronotum, corium, large quadrate spots to connexivum above and beneath, and the legs ochraceous; a subbasal spot and apical angle to corium, and a subapical annulation to femora, piceous; antennæ dull ochraceous, the apical joints brownish; rostrum (excluding basal joint) castaneous; posterior lobe of pronotum rugulose, centrally sulcate, lateral angles obtusely subprominent; head sulcate between the eyes; apex of scutellum moderately, spinously, obliquely erect.

Length 18; breadth between pronotal angles 5½ millim.

Hab. Burma; Minhla (*Fea*).

c. Pronotum with the anterior and posterior lobes differently coloured.

1107. **Acanthaspis divisicollis,** *Walk.* (Reduvius) *Cat. Het.* vii, p. 197 (1873); *Dist. A. M. N. H.* (7) x, p. 185 (1902).

Body slender; head, anterior lobe of pronotum, and base of scutellum olivaceous-black; posterior lobe of pronotum, scutellum (excluding base), corium, abdomen above, rostrum, trochanters, body beneath, and femora dull purplish-red; tibiæ and tarsi piceous: anterior and lateral margins of sternum somewhat olivaceous; membrane with the basal area shining black, narrowly outwardly margined with ochraceous, its apical area fuscous, veins ochraceous at base; rostrum with the first joint a little longer than second; antennæ mutilated in typical specimen; anterior lobe of pronotum strongly sculptured, posterior lobe transversely rugose, lateral angles moderately, tuberculously, obtusely prominent; scutellar spine obliquely erect; body and legs longly pilose; corium sericeous.

Length 15½ millim.

Hab. Ceylon (*Templeton, Brit. Mus.*).

1108. **Acanthaspis concinnula,** *Stål, Ann. Soc. Ent. Fr.* 1863, p. 51.

Black, longly pilose; antennæ, posterior lobe of pronotum, corium, margin of abdomen, and legs stramineous; apex of first joint of antennæ, centre and apex of second joint, base, apex, a medial line and interior margin to corium, small marginal spots to abdomen, bases and apices of femora, bases, apices, and annulation to tibiæ, black; head subincrassate; first joint of antennæ a little shorter than head; lateral angles to posterior lobe of pronotum acute, slightly recurved; scutellar spine subreflexed.

Length 9 to 10 millim.

Hab. Deccan (*Stockholm Mus.*). Burma; Rangoon, Karennee, Palon, Teinzo (*Fea*).

The Burmese specimens, which I recognize as a varietal form of this species, have the disk of the abdomen beneath stramineous; the antennæ are sometimes unicolorous, sometimes as described above.

1109. **Acanthaspis fusconigra,** *Dohrn, Stett. ent. Zeit.* xxi, p. 407 (1860); *Stål, En. Hem.* iv, p. 74 (1874).

"Dilutely fuscous; head and thorax marked with black; pronotal lateral angles acutely spinous; internal margin of corium and the membrane obscure fuscous; beneath piceous, pilose; abdomen carinate, margin pale spotted with fuscous-testaceous; legs palely testaceous-fuscous, femora striated with fuscous, tibiæ annulated with fuscous; antennæ palely fuscous-testaceous; rostrum fuscous, base and apex palely testaceous." (*Dohrn.*)

Length 11 millim.

Hab. Ceylon.

I have not seen this species. Stål describes it as being allied to *A. concinnula*, but with the pronotal angles more produced, the posterior pronotal lobe totally flavescent, scutellar spine longer, with its apex flavescent; femora longly fuscous, lineately striate.

1110. **Acanthaspis lineatipes**, *Reut. Act. Soc. Sc. Fenn.* xii, p. 328 (1881).

Obscurely fuscous, longly palely pilose; base of first joint of antennæ, a small spot on the postocular area of the head above, the rugosities or carinæ of the anterior lobe of pronotum, the posterior lobe, anterior lateral angles and medial sulcation (its anterior portion excepted), apex of scutellum, subcostal vein, fascia continued to a third part from apex, then dilated and internally near membrane hookedly curved, quadrangular spots to connexivum, discoidal fascia to abdomen beneath, not reaching apex, prosternal margins, acetabular spots, and legs palely flavescent; coxæ and trochanters, longitudinal lines to femora, three annulations to tibiæ, and apices of tarsi piceous; membrane fuscous.

Length $12\frac{1}{2}$ millim.

Hab. Darjeeling.

I have not seen this species.

d. Pronotum dark, with pale spots and markings.

a'. Legs unicolorous.

1111. **Acanthaspis trimaculata**, *Reut. Rev. d'Ent.* vi, p. 157 (1887).

Body, rostrum, antennæ, and legs black or piceous, fuscously pilose; a large transverse spot, anteriorly medially excised, to posterior lobe of pronotum, and a somewhat round spot behind middle of corium, ochraceous; a large subapical spot to membrane, with its apex emarginate, white; testaceous spots to connexivum; anterior lobe of pronotum a little shorter than posterior lobe, which has its disk unarmed, the posterior lateral angles prominent, shortly dentately produced, their apices suberect; scutellum totally black, apical spine slightly ascendant; rostrum with the first joint a little longer than the second; pronotum with the anterior angles acute, anterior lobe sculptured, posterior lobe with its disk transversely rugulose.

Length, ♀, $21\frac{1}{2}$ millim.

Hab. "Northern India" (*Coll. Signoret*). Bombay (*Leith*); Bor Ghát (*Dixon*).

b'. Legs annulated.

a^2. Corium spotted.

1112. **Acanthaspis rama**, sp. n.

Black; posterior lobe of pronotum with two rounded basal spots, corium with a small basal spot and a larger rounded subapical spot, spots to connexivum above and beneath, apices of femora, two broad annulations to tibiæ, and the tarsi luteous; first and

second joints of the rostrum subequal in length; first joint of the antennæ as long as the head; pronotum with the anterior lobe moderately sculptured, posterior lobe transversely rugulose, posterior angles dentately produced, their apices slightly recurved; scutellar spine obliquely ascendant.

Length 18 to 20 millim.

Hab. Sikhim and Berhampur (*Atkinson Coll., Brit. Mus.*).

In some specimens the spots to the corium are creamy-white.

1113. **Acanthaspis micrographa,** *Walk. Cat. Het.* vii, p. 177 (1873).

Dark chocolate-brown; two small spots on disk of posterior lobe of pronotum, a small spot on about centre of apical margin to corium, spots to connexivum, subobsolete and subapical annulation to femora, two annulations to tibiæ, one near base and one near apex, and base of apical joint of tarsi pale ochraceous; a small subapical spot to membrane greyish-white; finely pilose, somewhat longly pilose on legs; rostrum with the first and second joints about subequal in length; antennæ with the first joint about as long as head; pronotum with the anterior lobe prominently sculptured, the anterior angles obtuse; posterior lobe transversely rugulose, lateral angles dentately prominent, their apices recurved, disk unarmed; scutellar spine almost horizontally directed.

Length 21 millim.

Hab. "North Hindostan" (*Capt. Reid, Brit. Mus.*).

1114. **Acanthaspis tergemina,** *Burm.* (Platymeris) *Handb.* ii, p. 233 (1835); *Blanch.* (Reduvius) *Hist. Ins.* iii, p. 104 (1840); *Stål, En. Hem.* iv, p. 73 1874).

Tetroxia (Acanthaspis) scurra, *Bredd. SB. Ges. Naturf. Berl.* 1903, p. 117.

Stoll, Pun. fig. 298.

Black; basal joint of antennæ (excluding apex), four basal spots and lateral angles to posterior lobe of pronotum, sometimes fused, spots to connexivum above and beneath, apices of femora, two broad annulations to tibiæ and base of posterior joint of tarsi luteous; corium with basal angle luteous, and a transverse angulated and sinuated subapical spot creamy-white; apex of membrane greyish, enclosing a fuscous apical spot; first joint of rostrum a little longer than second; first joint of antennæ a little shorter than head; pronotum with the anterior lobe moderately sculptured, posterior lobe transversely rugulose, lateral angles shortly dentately produced, their apices slightly recurved, posterior disk unarmed; scutellar spine obliquely ascendant.

Length 16 to 20 millim.

Hab. Madras (*Coll. Dist.*). Ceylon (*Green & Lewis*); Trincomali (*Brit. Mus.*). Burma; Karennee, Palon, Teinzo (*Fea*).

I am indebted to Herr Breddin for allowing me to see a typical specimen of his species, which is the form having the basal spots and angle of the posterior pronotal lobe fused.

1115. **Acanthaspis sexguttata**, *Fabr.* (Reduvius) *Syst. Ent.* p. 832 (1775); *id. Mant.* ii, p. 312 (1787); *Stål, Hem. Fabr.* i, p. 124 (1868); *id. En. Hem.* iv, p. 73 (1874); *Dist. A. M. N. H.* (7) x, p. 184 (1902).
Cimex edleri, *Gmel. Syst. Nat.* 1, iv, p. 2199 (1788).

Piceous, fuscously pilose; posterior pronotal lobe with four transverse spots and the apices of the lateral angles (the two central spots largest, contiguous, and reaching basal margin) flavous-testaceous; corium with a subbasal and a larger somewhat rounded subapical spot, also a large apical spot to membrane, dull greyish-flavescent, the membranal spot containing an apical fuscous spot; femora annulated near apex and tibiæ biannulated with flavous-testaceous; pronotum with the anterior lobe distinctly sculptured, posterior lobe transversely rugulose, centrally sulcate, lateral angles dentately produced, their apices recurved, disk unarmed; first and second joints of rostrum above subequal in length; first joint of antennæ about as long as head; scutellar spine obliquely ascendant.

Length 16 to 20 millim.

Hab. Mysore; Bangalore (*Coll. Dist.*).

1116. **Acanthaspis pustulata**, *Stål, En. Hem.* iv, p. 73 (1874).

Black or piceous, pilose; a small lateral spot at anterior part of postocular portion of head, four posterior spots and the lateral angles to posterior pronotal lobe, basal angles and a large fasciate spot beyond middle of corium, spots to connexivum above and beneath, apical third of femora and two broad annulations to femora, luteous; an irregular apical spot to membrane greyish-white, enclosing a small fuscous spot; first and second joints of rostrum about equal in length; first joint of antennæ a little shorter than head; anterior lobe of pronotum moderately sculptured, posterior lobe transversely rugulose, lateral angles dentately produced, their apices a little recurved; disk unarmed; scutellar spine obliquely ascendant.

Length 14 millim.

Hab. Upper Burma (*Coll. Dist.*).

b². *Corium fasciate.*

1117. **Acanthaspis cincticrus**, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 188; *Reut. Rev. d'Entom.* vi, p. 157 (1887).

Black, pilose; lateral pronotal spines and a connecting fascia which is sometimes broken, an oblique fascia to corium recurved posteriorly, subapical annulation to femora, two annulations to tibiæ, abdominal marginal spots, and base of apical joint to tarsi luteous; membrane fuscous with the veins black; apex of rostrum castaneous; posterior lobe of pronotum a little longer than anterior lobe, which is tubercularly sculptured, posterior pronotal angles tuberculously spinously produced and recurved; first and second joints of rostrum subequal in length.

Length 13 to 15 millim.

Hab. Assam; East Gáro Hills (*Chennell*). Burma; Rangoon (*Stockholm Mus.*); Teinzo (*Fea*).—China; Shantung (*Coll. Dist.*). Japan (*Lewis*).

e. Pronotum pale, with dark spots and markings.

1118. **Acanthaspis inscripta**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 58.

Head, pronotum, scutellum, antennæ, rostrum, and legs ochraceous; second, third, and fourth joints of antennæ fuscous; eyes, a transverse impression between them, a spot on disk of head, and its constricted base laterally connected with eyes, base of first joint of rostrum and apices of second and third joints black; two small spots on anterior margin of pronotum, the transverse constriction, and a spot near each lateral angle black; scutellum with a black central basal spot; corium piceous-brown, its outer and apical areas black, base of lateral margin and a large irregular transverse spot near apex pale ochraceous; membrane piceous-brown, black at basal angle; connexivum above and beneath ochraceous, spotted with black; body beneath ochraceous; a central fascia to head beneath, coxæ, trochanters, irregular lines and spots to sternum, and posterior segmental margins to abdomen black; anterior lobe of pronotum strongly sculptured, posterior lobe finely granulate, the lateral angles produced in short tubercular spines slightly directed upward; scutellar spine well developed and obliquely erect; body moderately pilose, legs strongly pilose.

Length 11; breadth between pronotal angles 3 millim.

Hab. Ceylon; Kandy (*Green*).

b. *Lateral angles of pronotum rounded, not prominent.*

1119. **Acanthaspis annulicornis**, *Stål, En. Hem.* iv, p. 74 (1874).

Nigro-piceous, pilose; antennæ, two spots on postocular portion of head, and four spots on posterior lobe of pronotum, hemelytra, quadrangular spots to abdominal margin, base and subapical annulation to femora, broad annulation to anterior tibiæ, nearly whole of posterior tibiæ, and tarsi pale dull flavescent; corium with the interior vein (base excepted), a small basal spot, small discoidal spot, a spot at apical margin, and two veins to membrane black; antennæ with the apical half of first joint and base and apex of second joint piceous; posterior lobe of pronotum rugulose, with a distinct longitudinal immersed line which is posteriorly abbreviated; scutellar spine recurved.

Length 14 millim.

Hab. "North India" (*Coll. Signoret*).

I have not seen this species.

1120. **Acanthaspis coranodes**, *Stål, En. Hem.* iv, p. 74 (1874).

Black, pilose; a small spot near base and a large discoidal spot

to corium, quadrangular marginal spots to abdomen, narrow obsolete annulation near apices of posterior femora, subbasal annulations to tibiæ, and the tarsi pale, dull, flavescent. In structure resembling the genus *Coranus* (Stål).

Length 10 millim.

Hab. Sylhet (*Coll. Signoret*).

I do not know this species.

II. First joint of antennæ short, not passing apex of head.

1121. **Acanthaspis biguttula**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 52.

Black; a suboval spot at middle of corium and spots to lateral margins of abdomen dull stramineous; head incrassated; pronotum with the posterior lobe unarmed, lateral angles prominent, rounded; apex of scutellum acutely produced; spongy furrow to the anterior tibiæ occupying two-fifths of their length.

Length $9\frac{1}{2}$ millim.

Hab. "India."

I have not seen this species. The type is stated by Stål to be contained in the British Museum, but it is not now to be found in that collection.

Species known only by immature form.

1122. **Acanthaspis pedestris**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 51.

Fuscous-testaceous; legs and antennæ ochraceous, second joint of antennæ and the tarsi very pale ochraceous; head with a large spot at base and lateral areas behind eyes, pronotum with irregular carinæ, anterior discal spot and anterior angles to anterior lobe, a central and two narrow lateral spots to posterior lobe, fuscous; two central series of spots to abdomen above and spots to connexivum above and beneath flavous-testaceous; hemelytra minute, rudimentary, luteous; rostrum with the first joint shorter than the second, first joint of antennæ about as long as head; anterior lobe of pronotum very strongly sculptured, more than twice the length of posterior lobe, which is rugulose; apex of scutellum not produced; abdomen very broad.

Length, ♀, $13\frac{1}{2}$ millim.

Hab. Madras (*Brit. Mus.*).

I doubt the advisability of Stål describing this undoubtedly immature form. It is, however, that of a distinct species, though the structure of the pronotum is unlike that of an Acanthaspid.

Species of uncertain position.

1123. **Acanthaspis unifasciata**, *Wolff* (Reduvius), *Ic. Cim.* iv, p. 164, f. 158 (1804).

"Antennæ five-jointed, black, pilose; head black, subvillose, with an impressed linear frontal line, posteriorly with the ocelli red, the eyes fuscous; rostrum fuscous; pronotum subvillose,

black, anterior lobe longitudinally rugose (sculptured?), posterior lobe transversely rugose, lateral angles acutely spined, between these spines others, shorter, acute, red; scutellum black, its apex recurved; hemelytra black, with a broad medial reddish fascia which is medially dentate anteriorly; membrane black; under wings white, their apices spoted with fuscous; legs black, pilose, tarsi reddish." (In the figure the apices of the femora are also reddish.)

Length (taken from figure) 23 millim.

Hab. "India orientalis."

I do not know this species.

Genus **INARA**.

Inara, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 190; *id. En. Hem.* iv. p. 76 (1874).

Type, *I. flavopicta*, Stål, a Malayan species.

Distribution. Oriental Region.

Head behind eyes columnar, narrowed to base, before eyes prominently deflected, eyes very large; antennæ with the first joint about as long as from insertion to base of head, distinctly shorter than second joint; rostrum with the first and second joints almost equal in length; pronotum strongly constricted before middle, anterior lobe narrow and globose, posterior lobe with the lateral and posterior angles dentate: scutellum short with a long erect spine; hemelytra not passing abdominal apex; legs moderate in length; anterior femora slightly incrassated; anterior tibiæ with a spongy furrow; posterior tibiæ with the basal joint short and the apical joint long.

1124. **Inara alboguttata**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 53.

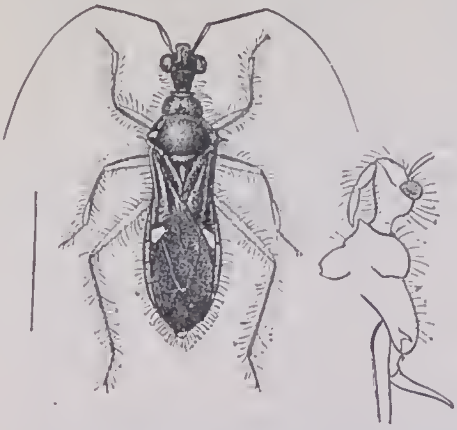

Fig. 180.—*Inara alboguttata.*

Shining bluish-black; spine to scutellum and legs reddish-ochraceous; apex of scutellar spine, apical streaks to anterior and intermediate femora above, apices of posterior femora, basal areas of anterior and intermediate tibiæ, the posterior tibiæ and the tarsi black; apex of corium black with a white spot; membrane black; pronotum with a distinct central linear impression at apex of posterior pronotal lobe, its lateral and posterior angles dentately produced; head, lateral margins of body and the legs longly pilose.

Length 15 millim.

Hab. Tenasserim; Domdami Valley (*Bingham*, *Brit. Mus.*). Malay Peninsula.

Genus **EDOCLA**.

Edocla, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 189; *id. En. Hem.* iv, p. 65 (1874).

Type, *E. bisbisignata*, Stål, a South-African species.

Distribution. Ethiopian and Oriental Regions.

Body subelongate; head with the postocular slightly longer than the anteocular portion of head, transversely impressed between eyes; antennæ with the first joint not longer than head; ocelli prominent; pronotum granulate, with the anterior and posterior lateral angles distinctly and somewhat longly acutely spinous, sometimes disk of anterior, sometimes disk of posterior lobe spinous, disks sometimes unarmed; scutellum with a long apical obliquely ascending spine, legs and antennæ pilose; rostrum with the first joint not quite so long as the second; abdomen beneath with a distinct central ridge; sternum granulate.

1125. **Edocla slateri**, *Dist. A. M. N. H.* (7) xi, p. 353 (1903).

Piceous; head, antennæ, anterior angles and central disk of anterior pronotal lobe, two central spots near anterior margin, lateral angles, a very small spot before them, and narrow hind margin to posterior pronotal lobe, scutellar spine, base of clavus, base and a large subapical spot (extending from lateral to apical margins, angulate on each side) to corium, connexivum, coxæ, legs, abdomen, lateral margins of metasternum, and anterior acetabula pale luteous; annulation to first joint of antennæ, biannulations to femora and tibiæ, apices of tibiæ, spots to connexivum above and beneath, lateral areas and apex of abdomen, and the membrane pale violaceous brown; antennæ pilose, second joint more than twice the length of first; head transversely constricted behind eyes; first and second joints of rostrum about subequal in length; anterior angles of anterior pronotal lobe longly spinous, the spines suberect and a little recurved, anterior lobe sculptured, posterior lobe granulate, lateral angles spinous and recurved; scutellar spine long, suberect.

Fig. 181.—*Edocla slateri.*

Length 9; breadth between pronotal angles 3 millim.

Hab. Mysore (*Slater*, *Brit. Mus.*).

1126. **Edocla pelia**, sp. n.

Head, anterior lobe of pronotum, scutellum, and body beneath piceous, finely greyishly pilose; posterior lobe of pronotum and hemelytra pale brownish; apex of spine to scutellum, a large apical subtriangular spot to corium and connexivum luteous, the last spotted with piceous above and beneath; apex of membrane fuliginous; legs luteous, bases and apices of femora, basal, medial and apical annulations to tibiæ piceous; antennæ pilose, with the first and second joints luteous, remaining joints fuscous, second joint almost twice the length of first; transverse incision between eyes very distinct; anterior lobe of pronotum sculptured, posterior lobe thickly and finely granulate, lateral angles spinously produced, directed a little upward and backward; apical spine to scutellum obliquely erect.

Length 11 millim.

Hab. Pegu (*Coll. Dist.*).—Aden (*Yerbury*).

Division *LENÆARIA*.

Body depressed, disk of abdomen beneath distinctly flattened; antennæ inserted close to or not far from the eyes; posterior coxæ placed far apart. Head, pronotum and coxæ unarmed.

Synopsis of Genera.

A. Prosternal process acute, sulcate, posteriorly recurved.
- a. Antenniferous tubercles well separated from eyes, not laterally prominent.
  - *a*. Posterior tibiæ and femora almost subequal in length .... VELITRA, p. 275.
- b. Antenniferous tubercles placed very near eyes, laterally moderately prominent.
  - *b*. Posterior tibiæ longer than posterior femora.
    - *a'*. Anterior and intermediate femora unarmed .... LENÆUS, p. 278.
    - *b'*. Anterior and intermediate femora short, incrassate, and denticulate or tuberculate beneath .... PARALENÆUS, p. 279.

B. Prosternal process straight, not recurved.
- a. Second joint of antennæ four or five times as long as first .... SMINTHOCORIS, p. 279.
- b. Second joint of antennæ about, or not more than, three times as long as first .. APECHTIA, p. 281.

Genus **VELITRA**.

Velitra, *Stål, Hem. Afr.* iii, p. 122 (1865); *id. Öfv. Vet.-Ak. Förh.* xxvii, p. 695 (1870); *id. En. Hem.* iv, p. 64 (1874).
Cerilocus, part., *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 187.

Type, *V. rubropicta*, Amy. & Serv.

Distribution. Oriental and Papuan Regions.

Body elongately ovate, moderately depressed; basal margin of the pronotum convexly rounded; apex of the scutellum laterally, spinously, elongately produced; posterior coxæ placed moderately wide apart, posterior tibiæ a very little longer than the femora; prosternal process sulcated and posteriorly recurved; disk of abdomen beneath flattened; first joint of antennæ short, second joint at least four times longer; antenniferous tubercles not laterally prominent.

A. *Posterior lobe of pronotum with three longitudinal series of punctures.*

a. *Spots to corium elongate, reddish-ochraceous or testaceous.*

α. *Legs unicolorous.*

1127. **Velitra rubropicta**, *Amy. & Serv.* (Opinus) *Hém.* p. 339 (1843); *Stål, En. Hem.* iv, p. 69 (1874); *Dist. A. M. N. H.* (7) x, p. 189 (1902).
Platymeris discolor, *Herr.-Schäff. Wanz. Ins.* viii, p. 31, f. 805 (1848).
Reduvius rivulosus, *Walk. Cat. Het.* vii, p. 194 (1873).

Piceous; corium very pale testaceous, base, an elongate spot on each side of claval apex, and a large irregular spot not reaching apical angle piceous; membrane with the greater part of the venation and apical margin pale ochraceous; antennæ (excluding basal joint), connexivum, tibiæ and tarsi brownish-ochraceous; second and remaining joints of antennæ finely pilose; pronotum with the anterior lobe moderately sculptured, posterior lobe with three longitudinal series of punctures, one central, the others on lateral areas; legs and rostrum pilose, the last with the first joint slightly shorter than the second.

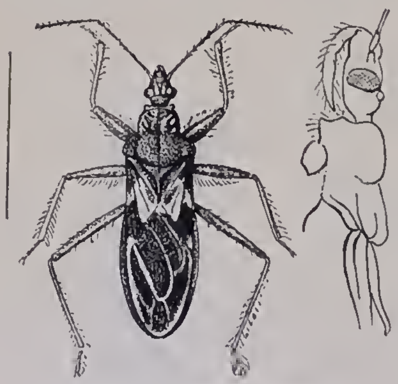

Fig. 182.—*Velitra rubropicta.*

Length 18 to 20 millim.

Hab. Sylhet (*Browning, Brit. Mus.*). Burma; Palon, Bhamo (*Fea*). Tenasserim; Malewoon (*Fea*).—Malay Peninsula, Java, and several islands of the Malayan Archipelago.

b. *Femora palely annulated.*

1128. **Velitra stigmatica**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 59.

Piceous; a broad longitudinal somewhat oblique fascia to corium commencing on disk a little beyond base and terminating

on apical margin, a broad central annulation to femora (most distinct on posterior and more obsolete on anterior femora), and the margins of the last two segments of the connexivum both above and beneath reddish-ochraceous.

Allied in shape and structure to *V. rubropicta*, A. & S., but with the membrane unicolorous, femora distinctly annulated, fascia to corium entirely discal and connected with lateral margin, &c.

Length 22 millim.

Hab. Assam; Khási Hills (*Chennell*).

b. *Spots to corium transverse, stramineous or creamy-white.*

a. *Legs reddish-ochraceous.*

1129. **Velitra alboplagiata**, *Stål* (Cerilocus), *Öfv. Vet.-Ak. Förh.* 1859, p. 187; *id. En. Hem.* iv, p. 69 (1874).

Piceous; antennæ fuscous, base of second joint dull testaceous; rostrum, legs, and a somewhat obsolete spot on each side of head behind eyes reddish-ochraceous, apices of femora infuscated; a broad irregular fascia crossing middle of corium and clavus pale ochraceous or creamy-white; connexivum ochraceous or testaceous. In structure resembling *V. rubropicta.*

Length 17 to 18 millim.

Hab. Andamans; Port Blair (*Meldola*).—Described from the Philippines.

b. *Legs piceous.*

1130. **Velitra sinensis**, *Walk.* (Reduvius) *Cat. Het.* vii, p. 196 (1873); *Dist. A. M. N. H.* (7) x, p. 189 (1902).

Piceous or black; legs, rostrum and antennæ brownish-piceous; an irregular transverse fascia crossing corium a little beyond base and extending to inner angle stramineous; membrane with a small spot at base and centre of inner margin stramineous; basal joint of antennæ darkest; antennæ, legs and rostrum finely pilose. In structure resembling the preceding species. Walker describes the pronotum as having "hind lobe punctured with one furrow"; there are, however, three longitudinal series placed as in *V. alboplagiata.*

Length $13\frac{1}{2}$ to 14 millim.

Hab. Ceylon (*Green*).—China; Hongkong (*Brit. Mus.*).

B. *Posterior lobe of pronotum centrally broadly sulcate.*

1131. **Velitra maculata**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 58.

Brownish-piceous; base of first joint and second joint (excluding apex) of antennæ, bases of second and third joints of

rostrum, five transverse basal spots (sometimes obscure) to posterior lobe of pronotum, a subbasal and discal spot to corium, the second largest and emarginate, sometimes two small claval and subclaval spots, spots to connexivum above and beneath, basal and subapical annulations to femora and tibiæ, and the tarsi pale ochraceous. Disk of pronotum centrally, broadly sulcate, especially on posterior lobe; apex of scutellum longly spinous; legs and antennæ pilose.

Length 10 to 12 millim.

Hab. Calcutta (*Atkinson*). Burma; Bhamo, Teinzo, Palon, Katha (*Fea*).

Genus **LENÆUS**.

Lenæus, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 186; *id. Hem. Afr.* iii, p. 121 (1865); *id. En. Hem.* iv. p. 64 (1874).

Type, *L. pyrrhus*, Stål.

Distribution. Ceylon.

Body depressed; head anteriorly conically produced; behind eyes constricted, with a short basal collar; antennæ with the basal joint reaching apex of head, the second joint nearly five times longer; antenniferous tubercles laterally a little prominent; first joint of rostrum longer than the second; scutellum with the apex longly straightly produced; intermediate and posterior tibiæ wide apart, the latter rather more so than the former; anterior femora incrassated, but unarmed; anterior tibiæ apically provided with a spongy furrow; abdomen beneath with the disk oblongly flattened, its margins ridged; metasternum tricarinate.

1132. **Lenæus pyrrhus**, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 187; *Dist. A. M. N. H.* (7) x, p. 189 (1902).
Opinus rugicollis, *Walk. Cat. Het.* viii, p. 3 (1873).

Sanguineous; eyes, membrane, and apex of abdomen beneath

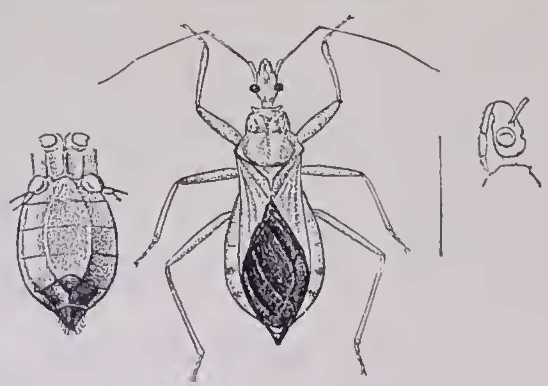

Fig. 183.—*Lenæus pyrrhus.*

black; antennæ with the first joint sanguineous, remainder fuscous, base of second joint reddish; anterior and posterior lobes

of pronotum about equal in length, anterior lobe sculptured, posterior obsoletely rugulose, with three longitudinal series of punctures, one central and two lateral.

Length 12 to 13 millim.

Hab. Ceylon (*Green*).

Walker has wrongly described this species. The antennæ are not black, but the second and third joints are fuscous, the first and base of second testaceous.

Genus **PARALENÆUS**.

Paralenæus, *Reut. Act. Soc. Sc. Fenn.* xii, p. 321 (1881).

Type, *P. pyrrhomelas*, Reut.

Distribution. Northern India.

Allied to *Lenæus*, but differing by the anterior and intermediate femora being short, incrassate, and denticulate or tuberculate beneath; the apex of the scutellum more constricted and its anterior area more ampliated.

1133. **Paralenæus pyrrhomelas**, *Reut. Act. Soc. Sc. Fenn.* xii, p. 322 (1881).

Fig. 184.
Paralenæus pyrrhomelas.

Black, somewhat glabrous; posterior lobe of pronotum, corium and connexivum sanguineous; more than apical half of clavus, followed by an elongate subclaval spot, and membrane black, opaque; inner angle of membrane pale, containing a small black spot; apex of scutellum, and sixth abdominal segment medially, piceous.

Length $11\frac{1}{2}$ millim.

Hab. Darjeeling (*Stockholm Mus.*).

I am indebted to the kindness of Dr. Sjöstedt for the opportunity of figuring this species.

Genus **SMINTHOCORIS**, nom. nov.

Sminthus, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 186; *id. Hem. Afr.* iii, p. 120 (1865); *id. Öfv. Vet.-Ak. Förh.* 1870, p. 694 note; *id. En. Hem.* iv, p. 64 (1874); *nec Keys. & Blas. Mam.* 1840.
Opinus (part.), *Lap. Ess. Hém.* p. 78 (1832).
Tapeinus (part.), *Lap. Ess. Hém.* p. 81 (1832); *Bergr. Rev. d'Ent.* xiii, p. 163 (1894); *nec* Tapeina, *Lepell. & Serv. Col.* 1825.
Tapinus (part.), *Burm. Handb.* ii, p. 236 (1835).

Type, *S. pictus*, Lap., a Malayan species.

Distribution. Oriental Region and throughout the Malayan Archipelago.

Body depressed; head anteriorly conically produced, antenniferous tubercles laterally prominent; first joint of antennæ not reaching apex of head, second joint four or five times as long as first; rostrum with the first and second joints subequal in length; pronotum depressed, before middle transversely compressed; scutellum with the apex longly straightly produced; prosternum elevated, sulcate, narrowed posteriorly; mesosternum flat; intermediate and posterior coxæ very widely separated; anterior and intermediate femora incrassated but unarmed, each anterior tibia with a spongy furrow which occupies almost one-half of its length.

1134. **Sminthocoris fuscipennis**, *Stål* (Sminthus), *En. Hem.* iv, p. 68 (1874); *Kirk.* (Tapeinus) *Entomol.* 1902, p. 136.

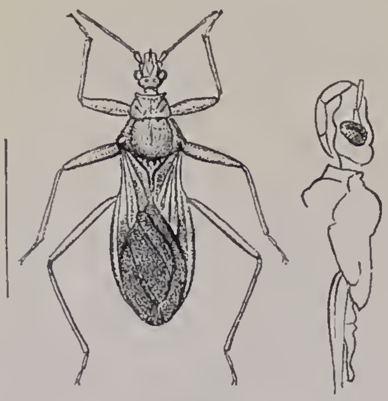

Fig. 185.
Sminthocoris fuscipennis.

Sanguineous; hemelytra black, base of corium sanguineous; lateral fasciæ to body beneath fuscous or piceous; first joint of antennæ sanguineous, second and remaining joints brownish-ochraceous and pilose; posterior lobe of pronotum with three longitudinal series of punctures—one central, the others sublateral; apex of scutellum long, conical, straightly produced.

Length 15 to 17 millim.

Hab. Assam; Khási Hills (*Chennell*). Burma; Karennee (*Fea*).

1135 **Sminthocoris marginellus**, *Dist.* (Sminthus) *J. A. S. B.* xlviii, p. 38, pl. ii, f. 1 (1879).

Sanguineous; head, hemelytra, lateral margins of sternum and abdomen beneath and abdominal segment black; antennæ obscure testaceous; a sanguineous spot behind each eye and base of corium narrowly of the same colour.

Allied to *S. fuscipennis*, Stål, from which it differs by the very much more robustly developed eyes and the narrower space between them; the head is slightly more elongated; longitudinal punctures to posterior lobe of pronotum more strongly defined.

Length 17 to 18 millim.

Hab. Burma; Ruby Mines (*Doherty*). Upper Tenasserim (*Limborg*).

1136. **Sminthocoris greeni**, *Dist.* (Sminthus) *A. M. N. H.* (7) x, p. 190 (1902).

Pale sanguineous; head in front of eyes, eyes, area of the ocelli, a small spot on each side of base, anterior lobe of pronotum

(excluding base), lateral margins of posterior lobe, corium, membrane, connexivum, prosternum, lateral margins of meso- and metasterna, lateral areas of abdomen beneath, apices of the femora, and under surfaces of anterior and intermediate femora piceous; tibiæ ferruginous; antennæ brownish-ochraceous, apical joint and base and apex of second joint piceous; base of corium and clavus sanguineous. Posterior lobe of pronotum with three distinct longitudinal impressions; base of scutellum centrally sulcate.

Length 17 millim.

Hab. Ceylon (*Green*, *Brit. Mus.*).

1137. **Sminthocoris singularis,** *Walk.* (Reduvius) *Cat. Het.* vii, p. 198 (1873); *Dist.* (Sminthus) *A. M. N. H.* (7) x, p. 189 (1902).
Tapeinus heydeni, *Bredd. Wien. ent. Zeit.* xxi, p. 23 (1902).

Piceous or black; antennæ, eyes, a small spot behind each eye, corium, connexivum above and beneath, and legs luteous; first joint of antennæ and apical area of corium black; veins and apical margin to membrane luteous; about apical third of femora, a narrow fascia on under surface of anterior femora, and apices of tibiæ (somewhat obsoletely) black; disks of sternum and abdomen brownish-ochraceous; central longitudinal series of punctures to posterior lobe of pronotum profound.

Length 12 to 13½ millim.

Hab. "Hindostan" (*Brit. Mus.*). Burma; Palon, Bhamo (*Fea*).—Malay Peninsula. Borneo (*Pryer*, *Doherty*, & *Shelford*). Sumatra (*Forbes*). Java, Philippines (*Brit. Mus.*).

Genus APECHTIA.

Apechtia, *Reut. Act. Soc. Sc. Fenn.* xii, p. 320 (1881).

Type, *A. mesopyrrha*, Reut.

Distribution. Ceylon.

Body ovate, depressed; head porrect, with a distinct impression in front of eyes; rostrum with the second joint distinctly longer than the first; antennæ with the first joint not passing apex of head, second about three times longer than first; pronotum very strongly constricted near middle, the anterior angles tuberculously prominent, a distinct central longitudinal impression, posterior margin convexly rounded; scutellum produced in a long horizontal apical spine; prosternal process sulcate, its apex compressed; anterior and intermediate femora incrassated, armed beneath with a series of short tuberculous spines; posterior tibiæ slightly longer than femora. Allied to *Sminthocoris*, from which it differs principally by the shorter second joint of the antennæ.

1138. **Apechtia mesopyrrha,** *Reut. Act. Soc. Sc. Fenn.* xii, p. 321 (1881).

Piceous, glabrous; posterior lobe of pronotum, disk of abdomen

beneath, and posterior tibiæ somewhat fuscous-testaceous; corium sanguineous, subopaque, its lateral margin narrowed at base, also apical angle, black; membrane black; apex of clavus, internal area

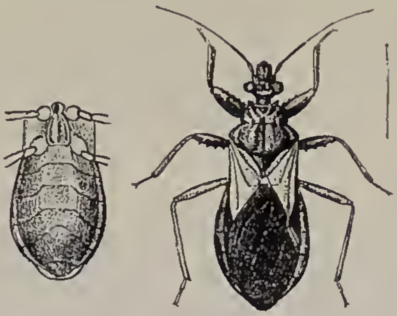

Fig. 186.—*Apechtia mesopyrrha.*

of corium, and short basal line at base of membrane between external vein at apex of corium dull flavescent; black vittæ on apical area of clavus and adjoining subclaval area of corium.

Length $10\frac{1}{2}$ millim.

Hab. Ceylon.

Division *CONORHINARIA.*

Head long, porrect; anteocular portion of head longer, generally very much longer, than postocular area; a more or less distinct and transverse impression between them or immediately behind eyes.

Synopsis of Genera.

A. Antennæ inserted nearer to apex of head than to eyes.
  a. First joint of rostrum longer than second; head about as long as pronotum .... TIARODES, [p. 284.
  b. First joint of rostrum very much shorter than second; head as long as pronotum aud scutellum together .... LINSHCOSTEUS, [p. 287.
B. Antennæ inserted about midway between eyes and apex of head.
  c. First and second joints of rostrum subequal in length; head bifidly produced at apex ...... DURGANDA, [p. 282.
  d. First joint of rostrum much shorter than second; head not bifidly produced .... CONORHINUS, [p. 285.

Genus **DURGANDA**.

Durganda, *Amy. & Serv. Hém.* p. 340 (1843); *Stål, Hem. Afr.* iii, p. 120 (1865); *id. En. Hem.* iv, p. 64 (1874).
Opinus (part.), *Lap. Ess. Hém.* p. 78 (1832).
Tapeinus (part.), *Lap. Ess. Hém.* p. 81 (1832).

Type, *D. rubra*, Amy. & Serv.

Distribution. Oriental Region, and throughout the Malayan Archipelago.

Body strongly depressed; head porrect, anteriorly bifidly produced, strongly compressed between the eyes, ocelli placed widely apart; antennæ remote from eyes, second joint about twice as long as first; pronotum strongly medially compressed, the posterior lobe broader than the anterior, both lobes finely centrally sulcated, anterior angles tuberculously prominent, posterior angles broadly rounded; prosternum anteriorly sulcate, its process flat, longly posteriorly produced, broad, truncate; intermediate and posterior coxæ placed widely apart, inserted near lateral margins of the body; anterior femora somewhat strongly spined beneath; rostrum with the first and second joints subequal in length.

1139. **Durganda rubra,** *Amy. & Serv. Hém.* p. 341 (1843).
Tapeinus rufus, *Lap. Ess. Hém.* p. 82 (1832).
Var. fuscipes, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 237.

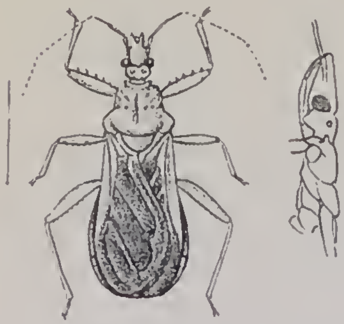

Fig. 187.—*Durganda rubra.*

Sanguineous; membrane piceous; abdomen beneath usually much more darkly or obscure reddish; antennæ ochraceous, pilose; anterior lobe of pronotum moderately sculptured, posterior lobe anteriorly finely granulate; legs finely pilose, anterior femora armed with a series of long spines beneath.

Length 10 to 12 millim.

Hab. Assam; Dunsiri Valley (*Anderson*). Burma; Bhamo (*Fea*).—Java, Borneo, and other islands of the Malayan Archipelago.

1140. **Durganda fulvescens,** sp. n.

Head, pronotum, scutellum, sternum beneath and legs fulvous; abdomen beneath pale luteous; hemelytra piceous, base and inner margin, extending to about half the length of membrane, broadly pale luteous. Allied to *D. rubra,* and, apart from colour-markings, differing also by the more distinctly produced tuberculous anterior angles of the pronotum, the lateral posterior angles a little more nodulose, transverse impression between the eyes a little more curved, anterior pronotal lobe somewhat less sculptured, &c.

Length 11 millim.

Hab. Tenasserim; Tavoy (*Coll. Dist.*).

Genus **TIARODES.**

Tiarodes, *Burm. Handb.* ii, p. 237 (1835); *Amy. & Serv. Hém.* p. 341 (1843); *Stål, Hem. Afr.* iii, p. 120 (1865); *id. En. Hem.* iv, p. 64 (1874).
Cimbus, *Lap. Ess. Hém.* pp. 78 & 80 (1832).
Cymbidus, *Spin. Ess. Hém.* p. 98 (1837).

Type, *T. versicolor*, Lap.

Distribution. Oriental Region, and throughout the Malayan Archipelago.

Body moderately depressed; head long and subcylindrical, anteocular very much longer than postocular area; insertion of antennæ very far removed from eyes; ocelli moderately wide apart; prosternum anteriorly profoundly sulcated, the process posteriorly angulated and not much produced; intermediate and posterior coxæ about equally separated from the lateral margins and from each other; first joint of the rostrum longer than the second; antennæ with the second joint more than twice the length of first; pronotum strongly medially impressed, the posterior lobe wider than the anterior lobe, anterior angles tuberculously prominent, posterior angles broadly rounded.

1141. **Tiarodes meldolæ**, *Dist. Tr. E. S.* 1880, p. 152.

Sanguineous; head above, apices of femora, bases of tibiæ, and abdomen shining bluish-black; hemelytra (excluding a broad sanguineous basal patch) black, opaque; sternum with two central and two lateral spots on each side bluish-black; antennæ (excluding basal joint) somewhat longly pilose; head finely transversely striate, with a somewhat obsolete central impression; disk of pronotum sulcate, the anterior and posterior lobes subequal in length; scutellum distinctly foveate at base.

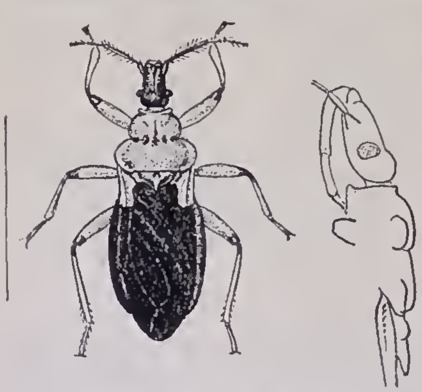

Fig. 188.—*Tiarodes meldolæ.*

Length 20 to 22 millim.

Hab. Andamans; Port Blair (*Meldola*).

1142. **Tiarodes versicolor**, *Lap.* (Cimbus) *Ess. Hém.* p. 80 (1832); *Blanch.* (Ectrichodia) *Hist. Ins.* iii, p. 106 (1840); *Burm. Handb.* ii, p. 237 (1835); *Amy. & Serv. Hém.* p. 342 (1843).

Sanguineous; head above, broad lateral margins, sometimes the whole of the first to fourth segments, to the abdomen beneath,

apices of femora, bases of anterior and intermediate tibiæ, and the posterior tibiæ bluish-black; a spot on each side of the penultimate abdominal segment, sometimes the whole of the two last segments, ochraceous; hemelytra and connexivum black, opaque, the first with the basal angles sanguineous, the second with the penultimate segment, or last two segments, ochraceous; anterior lobe of the pronotum a little longer than the posterior.

Var. *a*. Abdomen with an ochraceous spot on each side of abdominal penultimate segment; anterior tibiæ with apex bluish-black.

Var. *b*. Resembling var. *a*, but with anterior tibiæ wholly bluish-black.

Var. *c*. Last two abdominal segments ochraceous, other segments of connexivum spotted with ochraceous.

Length 15 to 18 millim.

Hab. Sylhet (*Stockholm Mus.*). Tenasserim; Myitta (*Doherty*), Thagata (*Fea*).—Sumatra, Borneo, Java, and other islands of the Malayan Archipelago.

1143. **Tiarodes elegans**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 55.

"Blackish-blue; rostrum, hemelytra, legs, and abdomen sanguineous, the abdomen with the last and anal segments blackish-blue; membrane (base excepted) dark fuscous." (*Stål.*)

♂ ♀. Length 18 millim.

Hab. Ceylon.

I have not seen this species. Stål records the type as being in the collection of the British Museum; but this may have been an error, as it is not to be found there now.

Genus **CONORHINUS**.

Conorhinus, *Lap. Ess. Hém.* p. 78 (1832); *Stål, Berl. ent. Zeitschr.* 1859, p. 106; *id. Hem. Afr.* iii, p. 120 (1865); *id. En. Hem.* iv, p. 64 (1874).

Type, *C. rubrofasciatus*, de Geer.

Distribution. Nearctic, Neotropical and Oriental Regions, China, and Madagascar.

Head long, porrect, more or less distinctly impressed behind eyes; rostrum with the first joint very much shorter than second; antennæ inserted on the sides of the head about midway between eyes and apex; ocelli placed very far apart; prosternum broadly sulcated; abdomen strongly ampliated, not centrally carinate, frequently with the disk prominently flattened; posterior tibiæ longer than the femora.

Some of the species of this genus are formidable insects, for instance, *C. infestans*, Klug (=*renggeri*, Herr.-Sch.), which, as

Darwin relates in his 'Voyage of the Beagle,' attacks travellers who are camping out ou the Pampas of South America, or who are sleeping in outhouses. Before sucking the insects are quite thin, but afterwards they become round and bloated with blood, and are then easily crushed. One which Darwin caught was placed on a table, and, though surrounded by people, if a finger was presented, the bold insect would immediately protrude its rostrum, make a charge, and, if allowed, draw blood. Mr. Kirby states, 'Text-book of Entomology,' that he has had similar information given him by Mr. T. Edmonds, who lived for some years in the same country. Although no ill effects follow the attack as detailed above, according to Dr. Sharp, in the case of *C. sanguisugus*, Leconte, a North-American species, great pain and inflammation ensue, aud may end in the gathering and discharge of pus.

1144. **Conorhinus rubrofasciatus**, *de Geer* (Cimex), *Mém.* iii, p. 349, pl. xxxv, f. 12 (1773); *Amy. & Serv. Hém.* p. 384, pl. viii, f. 2 (1843); *Stål, Hem. Fabr.* i, p. 123 (1868); *Champ. Biol. Centr.-Amer., Rhynch.* ii, p. 208, tab. xii, f. 22 (1899).
Stoll, Pun. f. 85.

Piceous-brown; basal margin of head, anterior angles and anterior and lateral margins of pronotum, nearly apical half of scutellum, a basal oblique linear streak and a subapical discal spot to corium, connexivum and tarsi ochraceous; connexivum above and beneath spotted with piceous, the spots not quite reaching lateral margins; membrane fuscous; antennæ finely pilose, first and second joints piceous, remainder pale ochraceous; head distinctly granulate; antennæ with the first joint not quite reaching apex of head, second joint about three times the length of first; pronotum coarsely granulate, anterior angles somewhat longly tuberculously prominent, transversely impressed before middle, the anterior lobe moderately subglobose; disk of abdomen beneath distinctly flattened.

Fig. 189.
Conorhinus rubrofasciatus.

Length 19 to 23 millim.

Hab. Sylhet (*Stockholm Mus.*). Bombay (*Leith*); Bor Ghát (*Dixon*). Calcutta and Mysore (*Ind. Mus.*). Ceylon (*Green*). Andaman Islands (*Ind. Mus.*). Burma; Toungoo, Mandalay (*Fea*). —Widely distributed throughout the Malay Peninsula and Malayan Archipelago; recorded from Madagascar; West Africa

(*Coll. Dist.*); and generally found in the Southern Nearctic and Northern Neotropical Regions and in the Antilles.

Nocturnal; usually found in houses in the Bor Ghát (*R. M. Dixon*).

Genus **LINSHCOSTEUS**, nov.

Type, *L. carnifex*, Dist.

Distribution. Northern districts of India.

Head cylindrical, porrect, very long, as long as pronotum and scutellum together, sinuately constricted behind eyes, anteocular portion more than three times as long as postocular portion; antennæ inserted much nearer to apex than to eyes, at about one-third from apex of anteocular portion, the first joint not nearly reaching apex of head, second joint as long as anteocular portion of head; antenniferous tubercles laterally prominent; rostrum adpressed to head, reaching eyes, first joint short, second very long; pronotum somewhat short, subtriangular, constricted before middle, posterior lateral angles obtusely prominent; body broad, flattened, lateral abdominal margins much dilated; membrane large, about reaching apex of abdomen; scutellum short, broad, apex produced in a somewhat long, lateral tuberculous spine; disk of abdomen beneath flattened; legs unarmed, femora not incrassated.

1145. **Linshcosteus carnifex**, sp. n.

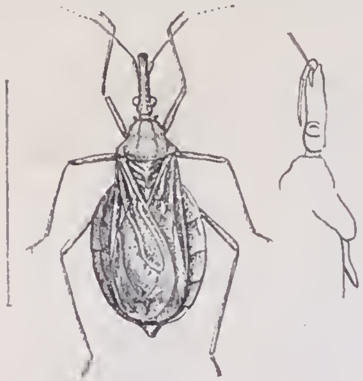

Fig. 190.—*Linshcosteus carnifex.*

Black; head, basal joint of antennæ, rostrum, connexivum, abdomen beneath, and legs piceous; membrane and tarsi brownish-ochraceous; head finely granulate; pronotum with the anterior lobe finely sculptured, anterior angles tuberculously prominent, posterior lobe transversely rugulose: scutellum granulate, its apex transversely striate; eyes greyish; connexivum broad, rounded, a little reflexed, narrowed anteriorly and posteriorly; antennæ and tibiæ very finely pilose.

Length ♀ 24 millim.

Hab. "North India" (*Brit. Mus.*).

Species of doubtful generic position.

1146. **Cerilocus discolor,** *Stål, Stett. ent. Zeit.* xxii, p. 146 (1861).

"Fuscous-piceous, shining; corium sanguineous, apical and costal margins, base narrowly, and membrane black; apex of scutellum spinously produced; anterior femora beneath with numerous small spines disposed in double series; disk of abdomen beneath palely coloured." (*Stål.*)

Length 10 millim.

Hab. Ceylon.

The type was described as in Dohrn's collection, and Stål in his subsequent 'Enumeratio Hemipterorum' placed his species in "*Species incerti generis.*" It is probably to be collated near *Paralenærus* and *Gerbelius.* I have not yet seen a specimen.

Subfamily VIII. PIRATINÆ.

Piratina, *Stål, En. Hem.* iv, p. 4 (1874).

The pronotal characters of the Piratinæ are very apparent; the transverse constriction is situated behind the middle, and the whole pronotum is of a more or less elongate character; the scutellum, as in the previous subfamilies, is triangular or subtriangular, its apex acuminate, or spinously produced.

A few species belonging to this subfamily have been observed in the act of stridulation, which is doubtless a much more common accomplishment than is generally understood. Field entomologists might with advantage investigate this question.

Synopsis of Genera.

A. Head of moderate length; antennæ inserted near, or not remote from, eyes; intermediate tibiæ generally provided with a spongy furrow.
- a. Anterior tibiæ ampliated and incrassated; lateral angles of posterior lobe of pronotum ampliated and rounded .... ANDROCLUS, p. 289.
- b. Anterior tibiæ normal, not ampliated and incrassated; lateral angles of posterior lobe of pronotum obtusely prominent, not ampliately rounded.
  - *a.* Anterior femora compressed and ampliated beneath; anterior tibiæ provided only with a very short or extreme apical spongy furrow .... PHALANTUS, p. 290.
  - *b.* Anterior femora neither compressed nor ampliated beneath; anterior tibiæ provided with a well-developed spongy furrow.
    - *a'.* Pronotum smooth, or with posterior lobe finely granulate.

a^2. Spongy furrow occupying more than half of anterior tibiæ	ECTOMOCORIS, p. 291.
b^2. Spongy furrow occupying less, or not more, than half of anterior tibiæ	PIRATES, p. 297.
b'. Pronotum tuberculously granulate ..	CATAMIARUS, p. 302.
B. Head long, porrect; antennæ inserted remotely from eyes; intermediate tibiæ without a spongy furrow	SIRTHENEA, p. 303.

Genus ANDROCLUS.

Androclus, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 58; *id. Hem. Afr.* iii, p. 113 (1865); *id. En. Hem.* iv, p. 56 (1874).
Subg. Dicraotropis, *Mayr, Verh. z.-b. Ges. Wien*, xv, p. 438 (1865); *Stål, En. Hem.* iv, p. 63 (1874).

Type, *A. granulatus*, Stål.

Distribution. Oriental Region, some islands of the Malayan Archipelago, and South-east Africa.

Head broad, strongly constricted behind eyes, basal collar short, central lobe elevated; antennæ with the first joint very short; rostrum very thick, second joint longest; pronotum very strongly transversely constricted, lateral margins ampliate, acuminate, tuberculous near anterior angles, posterior angles moderately prominent and rounded; abdomen a little dilated on each side; legs short, anterior femora incrassated, unarmed, anterior tibiæ broad, distinctly flattened above, and provided with a moderately sized apical spongy furrow beneath, posterior tarsi with the last joint slightly shorter than preceding joint.

1147. **Androclus granulatus**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 58.

Head, antennæ, pronotum, scutellum, and body beneath dark fuscous brown; corium ochraceous, speckled with brownish; clavus (excluding base) and a subclaval spot adjoining apical half of clavus castaneous-brown; membrane greyish-brown, with a large irregularly shaped discal castaneous-brown spot, the base ochraceous; rostrum, anterior and intermediate legs castaneous-brown, posterior legs fuscous; lateral abdominal margins ochraceous, with more or less distinct large castaneous spots; antennæ pilose, first joint and base of second joint castaneous, second joint a little the longest, third and fourth joints subequal; pronotum granulate, anterior lobe with a distinct raised

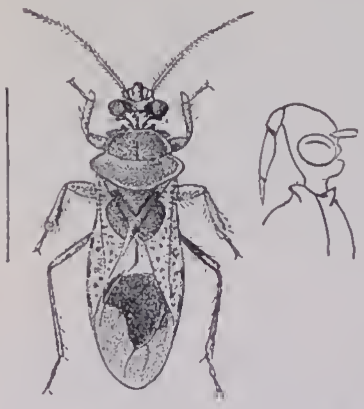

Fig. 191.—*Androclus granulatus.*

tubercle near each lateral angle; membrane passing abdominal apex.

Length 16 to 17 millim.

Hab. Assam; Khási Hills (*Chennell*). Deccan (*Stockholm Mus.*).

1148. **Androclus pictus**, *Herr.-Schäff.* (Pirates) *Wanz. Ins.* viii, p. 63 f. 827 (1848); *Stål* (A. Dichraotropis), *En. Hem.* iv, p. 63 (1874).

Androclus (Dichraotropis) sculpturatus, *Bredd. Soc. Entomol.* xviii, p. 4 (1903).

Castaneous; membrane and clavus (excluding base) pale fuliginous; a large central spot to clavus, a large rounded spot on corium outside claval apex, three or four small spots at base, and a very large irregularly shaped discal spot to membrane, dark piceous; spots to connexivum above and beneath, sternum, a series of transverse segmental spots on each lateral area of abdomen, and the posterior legs dark piceous: extreme apices of posterior femora and bases of posterior tibiæ luteous; antennæ pilose, second joint a little the longest; anterior pronotal lobe striate; anterior and intermediate femora incrassate.

Length $10\frac{1}{2}$ to 11 millim.

Hab. Nagpur (*Atkinson*). Bombay (*Coll. Dist.*).—Java. I also possess a specimen from South Africa, taken at Delagoa Bay (*Junod*). Transvaal (*Brit. Mus.*). Dutch East Africa (*fide Breddin*).

Genus **PHALANTUS**.

Phalantus, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 57; *id. Hem. Afr.* iii, p. 113 (1865); *id. En. Hem.* iv, p. 56 (1874).

Type, *P. geniculatus*, Stål.

Distribution. Ethiopian and Oriental Regions; China and Japan.

Head stout, broad, behind eyes moderately constricted, basal collar short; rostrum very stout, second joint longest, apical joint shortest; pronotum behind middle transversely constricted; scutellum with its apex produced; legs of moderate length, anterior femora incrassated, beneath ampliated and finely spinous, anterior tibiæ shorter than the femora, moderately curved, apically truncate, provided beneath with a short apical spongy furrow; posterior tarsi with the second joint a little longer than the third.

1149. **Phalantus feanus**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 61.

Black; first, third and fourth joints of antennæ and the legs ochraceous; second joint of antennæ and apex of first joint dull dark castaneous; apices of femora and bases of tibiæ black. Posterior lobe of pronotum and the scutellum very finely granulate, anterior lobe with a fine central linear sulcation; membrane

brownish-piceous, not quite reaching the apex of abdomen;

Fig. 192.—*Phalantus feanus.*

sternum very finely granulate; rostrum with the second joint more or less ochraceous.

Length 13 millim.

Hab. Burma; Bhamo (*Fea*).

1150. **Phalantus geniculatus**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 57.

Black; antennæ fuscous, the first joint ochraceous; anterior lobe of pronotum (narrow margins excepted), rostrum, and legs luteous; extreme apices of femora and bases of tibiæ piceous; anterior lobe of pronotum finely, centrally, linearly sulcate, posterior lobe minutely rugulose.

Length 11 millim.

Hab. Burma; Bhamo (*Fea*).—China; Hongkong (*Brit. Mus.*).

Genus ECTOMOCORIS.

Ectomocoris, *Mayr, Verh. z.-b. Ges. Wien,* xv, p. 438 (1865); *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 251.
Eumerus, *Klug, Symb.* ii (1830); *Stål, En. Hem.* iv, p. 56 (1874).
Peirates, *Serville, Ann. Sc. Nat.* xxiii, p. 215 (1831).
Pirates (part.), *Burm. Handb.* ii, p. 239 (1835); *Stål, Hem. Afr.* iii, p. 116 (1865).
Rasahus (part.), *Amy. & Serv. Hém.* p. 325 (1843).
Macrosandalus, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 251.
Sphodrocoris, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 251.
Subg. Callisphodrus, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 251.

Type, *E. quadriguttatus*, Fabr.

Distribution. Ethiopian, Oriental, South-east Palæarctic, and Australasian Regions.

Head moderately long, anteocular much longer than postocular area, impressed more or less transversely behind eyes; rostrum stout, the second joint longest; antennæ moderately long, first joint incrassated, shorter than head; pronotum elongate,

transversely constricted at about one-third from base, lateral margins of anterior lobe subconvex; apex of scutellum moderately produced; lateral margins of abdomen moderately dilated; legs of ordinary length, anterior femora strongly, intermediate femora moderately incrassated, anterior tibiæ about as long as femora, and provided with a spongy furrow which occupies more than half of their under surface.

A. *Body elongate; head anteriorly produced, as long as anterior lobe of pronotum.*

a. *Legs black, unicolorous.*

1151. **Ectomocoris horridus**, *Kirby* (Lestomerus), *J. Linn. Soc., Zool.* xxiv, p. 111, pl. iv, f. 16 (1891); *Dist.* (Sirthenea) *A. M. N. H.* (7) x. p. 286 (1902).

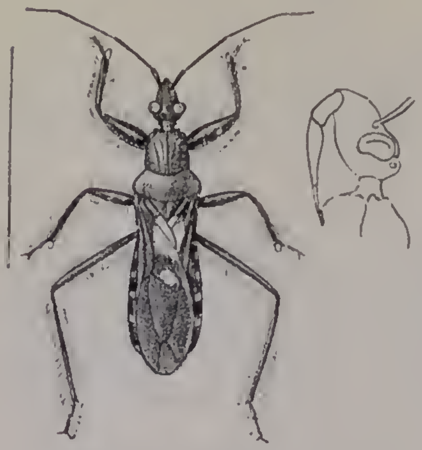

Fig. 193.—*Ectomocoris horridus.*

Black; apical half of clavus confluent with a somewhat similarly sized spot on corium, and a smaller spot at base of membrane, ochraceous; head elongately produced, as long as anterior lobe of pronotum or second joint of antennæ; antennæ moderately pilose; legs longly pilose; connexivum spotted with ochraceous above and beneath; apex of scutellum slightly reflexed.

Length 22 millim.

Hab. Ceylon (*Green*).

Mr. Kirby's description was founded on an immature specimen.

1152. **Ectomocoris erebus**, sp. n.

♀. Black; tegmina reaching the apex of the fourth abdominal segment; apex of clavus, an adjoining triangular spot on corium and base of inner margin of membrane ochraceous; head long, as long as anterior lobe of pronotum or second joint of antennæ; abdomen somewhat widely dilated; apex of scutellum slightly reflexed; connexivum black, unicolorous.

Length 22 millim.

Hab. Burma (*Brit. Mus.*); Rangoon, Bhamo (*Fea*).

b. *Legs bicolorous.*

1153. **Ectomocoris rufifemur**, *Walk.* (Pirates) *Cat. Het.* vii, p. 119 (1873); *Dist. A. M. N. H.* (7) x, p. 282 (1902).
Eumerus insignis, *Reut. Act. Soc. Sc. Fenn.* xii, p. 317 (1881).
Eumerus reuteri, *Bol. Ann. Soc. Ent. Fr.* 1882, p. 464.

Black; hemelytra piceous; apical third of clavus, with a small

adjacent vitta on corium, and a large basal spot to membrane greyish-stramineous; femora ferruginous-red, their extreme apices, the under surface of anterior femora, and the tibiæ olivaceous-black; connexivum spotted with ochraceous both above and beneath; head long, about as long as anterior lobe of pronotum or second joint of antennæ.

Length 20 to 23 millim.

Hab. Ceylon (*Thwaites*, *Brit. Mus.*).

The spot described by Walker as near the tip of the corium is really in the membrane. Reuter's description of *E. insignis* will correctly replace the pseudo-description given by Walker of his *E. rufifemur*.

1154. **Ectomocoris cyaneus**, *Stål* (Pirates), *Ann. Soc. Ent. Fr.* 1863, p. 56.

Dark indigo-blue: hemelytra fuscous-brown, an apical claval streak, a spot on corium adjoining apex of clavus, and a transverse spot near base of membrane greyish-white; tarsi and the posterior legs ochraceous; antennæ fuscous; head in front of eyes longly produced, a little longer than anterior lobe of pronotum and about as long as second joint of antennæ; apex of scutellum a little reflexed.

Length 22 millim.

Hab. "India" (*Brit. Mus.*).

Species immature, hemelytra not fully developed.

1155. **Ectomocoris tibialis**, sp. n.

♀. Black, opaque; first joint and base of second joint of antennæ, rudimentary hemelytra (excluding base and spot at apex), tibiæ and tarsi ochraceous; head anteriorly produced, as long as anterior lobe of pronotum; hemelytra only reaching base of first abdominal segment; spongy furrow to anterior tibiæ occupying three-fourths of their under surface.

Length, ♀, 17 millim.

Hab. Bor Ghát (*Dixon*).

B. *Body moderately elongate; head not prominently anteriorly produced, not so long as anterior lobe of pronotum.*

a. *Pronotum bicolorous; posterior lobe palely coloured.*

1156. **Ectomocoris quadriguttatus**, *Fabr.* (Reduvius) *Spec. Ins.* ii, p. 380 (1781); *id. Syst. Rhyng.* p. 277 (1803); *Dist. A. M. N. H.* (7) x, p. 282 (1902).

Cimex octomaculatus, *Gmel. Syst. Nat.* i, iv, p. 2199 (1788).

Ectomocoris coloratus, *Mayr, Verh. z.-b. Ges. Wien*, xv, p. 438 (1865).
Pirates sexmaculatus, *Walk. Cat. Het.* vii, p. 116 (1873).
Pirates decisus, *Walk. loc. cit.* p. 118.

Piceous-black; posterior lobe of pronotum, antennæ, rostrum, legs, marginal spots, and sometimes the whole of lateral abdominal margins, ochraceous; hemelytra with two subbasal, a transverse discal, and apical spots pale luteous; antennæ finely pilose, second joint about as long as anterior lobe of pronotum, which is smooth and obscurely longitudinally striate; legs pilose.

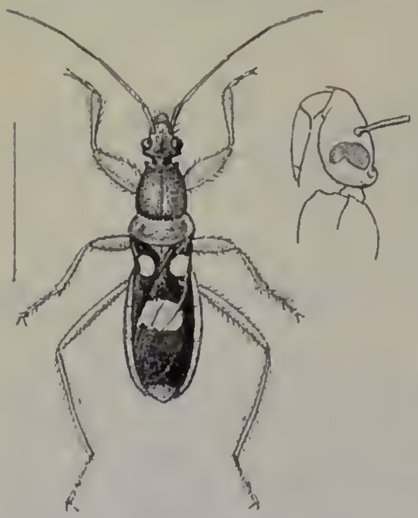
Fig. 194.—*Ectomocoris quadriguttatus.*

Length 14 to 17 millim.

Hab. North Bengal (*Brit. Mus.*); Bombay; Bor Ghát (*Dixon*); Pondicherry (*Coll. Signoret*). Ceylon (*Green*).

Walker, in his description of *P. decisus* (*supra*), has omitted to mention that the posterior lobe of the pronotum is testaceous.

1157. **Ectomocoris posticus,** *Walk.* (Pirates) *Cat. Het.* vii, p. 115 (1873); *Dist. A. M. N. H.* (7) x, p. 282 (1902).
Eumenes flaviger, *Stål, En. Hem.* iv, p. 61 (1874).

Black; apex of head, antennæ, rostrum, posterior lobe of pronotum, connexivum above and beneath, lateral margins of meso- and metasterna, and legs ochraceous; corium luteous, membrane black, its basal area luteous, its apex obscure greyish; antennæ pilose, second joint almost as long as pronotum; spongy furrow occupying more than two-thirds of under surface of anterior tibiæ.

Var. Membrane with a black basal spot.

Length 16 to 18 millim.

Hab. "North India" (*Brit. Mus.*).—Egypt; Ghizeh (*Flower, Brit. Mus.*).

b. *Pronotum unicolorous.*

a. *Legs ochraceous, unicolorous.*

1158. **Ectomocoris ochropterus,** *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 256; *Reut.* (Eumerus) *Act. Soc. Sc. Fenn.* xii, p. 314 (1881).

Black; first joint and basal area of second joint of antennæ, rostrum, clavus, corium, basal third of membrane, lateral margins of abdomen and legs ochraceous; inner margin of clavus, a linear

fascia near lateral margin of corium, and apex of membrane fuscous; second joint of antennæ shorter than anterior lobe of pronotum, which is extremely finely granulate; legs sparsely finely granulate.

Length 19 to 20 millim.

Hab. Bengal; Sáhebganj (*Coll. Dist.*), Calcutta, Berhampur (*Atkinson, Brit. Mus.*).

1159. **Ectomocoris cordatus**, *Wolff* (Reduvius), *Ic.* iv, p. 163, f. 157 (1804); *Stål* (Eumerus), *En. Hem.* iv, p. 61 (1874).
Peirates singalensis, *Dohrn, Stett. ent. Zeit.* xxi, p. 408 (1860).

"Black; hemelytra with the clavus, a spot confluent with the clavus, a spot at base and apex of membrane, lateral margins of abdomen, legs, rostrum, and antennæ flavous-testaceous; apices of the femora palely fuscous." (*Dohrn.*)

Length $12\frac{1}{2}$ millim.

Hab. Ceylon (*Stockholm Mus.*).

I have not seen this species.

1160. **Ectomocoris elegans**, *Fabr.* (Reduvius) *Syst. Rhyng.* p. 270 (1883); *Stål, Hem. Fabr.* i, p. 121 (1868); *Dist. A. M. N. H.* (7) x, p. 282 (1902).
Pirates inscriptus, *Walk. Cat. Het.* vii, p. 115 (1873).

Black; apex of head, rostrum, first joint and base of second joint of antennæ, coxæ, trochanters and legs ochraceous; clavus, corium and connexivum (excluding apex), and base of membrane luteous: base of claval suture, an oblique subclaval spot, and two linear fasciæ (outermost shortest), near lateral margin of corium, and a transverse macular fascia near base of membrane purplish-black; second joint of antennæ about as long as anterior lobe of pronotum; head ochraceously sericeous; anterior pronotal lobe with some almost obsolete longitudinal striations.

Length 15 to $18\frac{1}{2}$ millim.

Hab. Burma; Rangoon, Minhla (*Fea*). Tenasserim; Kawkareet (*Fea*).—Siam (*Brit. Mus.*), and found in several islands of the Malayan Archipelago; Timor (*Doherty*).

1161. **Ectomocoris cordiger**, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 256; *Dist. A. M. N. H.* (7) x, p. 283 (1902).
Pirates adjunctus, *Walk. Cat. Het.* vii, p. 114 (1873).

Piceous, opaque; pronotum and scutellum olivaceous-black, shining; antennæ, greater part of second and third joints of rostrum, small spots to connexivum above and beneath, and legs ochraceous; apical half of clavus confluent with a somewhat similar-sized spot on corium, also a small spot on outer area of basal cell to membrane, luteous; legs and antennæ distinctly

pilose; second joint of antennæ about as long as anterior lobe of pronotum.

Length 12 to 15 millim.

Hab. North Bengal (*Brit. Mus.*). Sylhet (*Stockholm Mus.*). Bombay; Bor Ghát (*Dixon*). Ceylon (*Green*).—Persian Gulf (*Brit. Mus.*).

b. Legs black, unicolorous.

1162. **Ectomocoris vishnu,** sp. n.

Black; apical third of clavus, a large subrounded spot on corium adjacent to apical half of clavus, and a small spot to membrane near the apical angle of corium ochraceous; antennæ and legs strongly pilose; second joint of antennæ as long as anterior lobe of pronotum, which is longer than head; apex of rostrum castaneous; abdomen mutilated in specimen described; spongy furrow to anterior tibiæ almost extending to base.

Length 20 millim.

Hab. Bombay (*Coll. Dist.*).

c. Legs not unicolorous.

1163. **Ectomocoris atrox,** *Stål* (Pirates), *Öfv. Vet.-Ak. Förh.* 1855, p. 187; *id.* (Eumerus) *En. Hem.* iv, p. 62 (1874); *Dist. A. M. N. H.* (7) x, p. 282 (1902).
Peirates fuscicornis, *Dohrn, Stett. ent. Zeit.* xxi, p. 408 (1860).
Pirates diffinis, *Walk. Cat. Het.* vii, p. 120 (1873).
Pirates ypsilon, *Kirby, J. Linn. Soc., Zool.* xxiv, p. 113, pl. iv, f. 8 (1891).
Pirates stigmativentris, *Kirby, loc. cit.* p. 112 (*immature form*).

Piceous-black, hemelytra purplish-black; a spot at base of membrane and the discal vein, spots to connexivum, apices of coxæ, and legs pale ochraceous; trochanters, anterior femora, apical halves of intermediate and posterior femora black; antennæ ochraceous, first joint black, its base ochraceous; apical joint of rostrum castaneous; antennæ finely pilose, legs more longly pilose.

Length 12 to 18 millim.

Hab. Bengal (*Stockholm Mus.*). Ceylon (*Green*). Burma; Rangoon, Palon, Bhamo, Karennee (*Fea*).—Found in the Malay Peninsula and many islands of the Malayan Archipelago. North China (*Brit. Mus.*).

1164. **Ectomocoris gangeticus,** *Bergr.* (Pirates) *Rev. d'Ent.* xiii, p. 162 (1894).

Black; clavus (base and extreme apex excepted) and an oblong adjacent spot on corium, a large spot at anterior basal angle of membrane and its apical area, and base of posterior femora pale

ochraceous; apical joint of rostrum and spots to connexivum above and beneath pale obscure piceous; head a little shorter than anterior lobe of pronotum; antennæ absent in typical specimen; in the female the anterior pronotal lobe nearly four times the length of posterior tibiæ; hemelytra only reaching the base of the fifth abdominal segment; spongy furrow to anterior tibiæ occupying the greater part of their under surface.

Length 12 millim.

Hab. Banks of the Ganges.

I am indebted to Dr. Bergroth for an opportunity of examining this species.

Genus **PIRATES.**

Peirates, *Serv. Ann. Sc. Nat.* xxiii, p. 215 (1831); *Lap. Ess.* pp. 6, 9, & 78 (1832).
Pirates, *Burm.* (part.) *Handb.* ii, pp. 222 & 239 (1835); *Amy. & Serv. Hém.* p. 324 (1843); *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 250; *id. En. Hem.* iv, p. 56 (1874).
Subg. Fusius, *Stål, Stett. ent. Zeit.* xxiii, p. 458 (1862).
Subg. Microsandalus, Brachysandalus, Cleptocoris, *Stål, Öfv. Vet.-Ak. Förh.* 1866, pp. 250, 251.
Subg. Spilodermus, *Stål, Hem. Fabr.* i, p. 122 (1868).
Lestomerus, *Amy. & Serv. Hém.* p. 322 (1843).

Type, *P. hybridus*, Scop., a Palæarctic species.

Distribution. Palæarctic, Ethiopian, Oriental, and Australasian Regions.

This genus possesses all the general characters of *Ectomocoris*, and is distinguished from it by the spongy furrow of each anterior tibia not occupying more than half its length.

A. *Anterior femora minutely tuberculously spinose beneath.*

a. *Legs wholly flavescent.*

α. *Hemelytra unspotted.*

1165. **Pirates flavipes**, *Walk.* (Lestomerus) *Cat. Het.* vii, p. 93 (1873); *Dist. A. M. N. H.* (7) x, p. 287 (1902).

Head, scutellum, hemelytra, and body beneath purplish-black; anterior lobe of pronotum, lateral margins of scutellum, and submarginal longitudinal vein to corium olivaceous-green; posterior lobe to pronotum purplish-bronzy; first joint of antennæ, rostrum (excluding base), and legs luteous; extreme apices of anterior and intermediate tibiæ piceous; second joint of antennæ as long as pronotum; anterior and intermediate femora tuberculously spinous beneath: apex of membrane fuliginous.

Length 17 millim.

Hab. "North India" (*Brit. Mus.*). Kangra Valley (*Dudgeon*). Bengal; Berhampur (*Atkinson*).

Mr. Dudgeon sent a specimen of this species, taken in the

Kangra Valley, to the British Museum with the information that "the insect makes a creaking noise when held between the fingers. moving the thorax up and down similar to the action of some Longicorn beetles. It has a most loathsome scent." The Palæarctic species *P. hybridus*, Scop. (=*stridulus*, Fabr.), is also known to stridulate.

b. Hemelytra palely spotted.

1166. **Pirates punctum,** *Fabr.* (Reduvius) *Ent. Syst.* iv, p. 203 (1794); *id.* (Reduvius) *Syst. Rhyng.* p. 277 (1803).
Pirates instabilis, *Walk. Cat. Het.* vii, p. 118 (1873).

Piceous; head, antennæ, rostrum, pronotum, connexivum (above and beneath), lateral margins of sternum and legs ochraceous; a large spot occupying apical half of clavus and adjoining portion of corium luteous; antennæ pilose, apex fuscous, second joint as long as pronotum; basal angles of posterior lobe of pronotum distinctly dentately produced; spongy furrow to anterior tibiæ occupying not more than a third of the under surface: anterior femora minutely tuberculously spinous beneath.

Length 15 millim.

Hab. North Bengal (*Campbell, Brit. Mus.*).

The type of Fabricius is contained in the Banksian Collection belonging to the British Museum.

b. *Legs flavescent, apices of femora fuscous.*

1167. **Pirates sanctus,** *Fabr.* (Reduvius) *Mant.* ii, p. 310 (1787): *Wolff, Ic.* ii, p. 80, f. 77 (1801): *Walk.* (Lestomerus) *Cat. Het.* vii, p. 94 (1873): *Dist. A. M. N. H.* (7) x, p. 283 (1902).
Cimex sacer, *Gmel. Syst. Nat.* i, iv, p. 2197 (1788).
Pirates latifer, *Walk. Cat. Het.* vii, p. 119 (1873).
Stoll, Pun. f. 62.

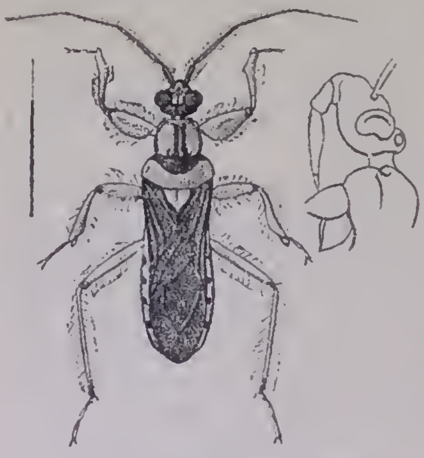

Fig. 195.—*Pirates sanctus.*

Luteous; eyes, narrow lateral margins and a central longitudinal fascia to anterior pronotal lobe, anterior marginal area of posterior pronotal lobe, hemelytra, transverse spots to connexivum above and beneath, lateral areas of prosternum, meso- and metasterna (excluding margins), segmental fasciæ and apex to abdomen, apices of femora and tibiæ, and anterior femora beneath black or piceous; antennæ pilose, second joint almost as long as pronotum; anterior pronotal lobe with a central fine linear sulcation, merged in a foveate spot

near base; anterior and intermediate femora tuberculously spinous beneath.

Length $14\frac{1}{2}$ to 15 millim.

Hab. Sind (*Coll. Dist.*). North Bengal (*Campbell, Brit. Mus.*). Ceylon (*Green*). Burma; Mandalay (*Bingham*).

c. *Legs black, bases of femora flavescent.*

1168. **Pirates femoralis,** *Walk.* (Lestomerus) *Cat. Het.* vii, p. 92 (1873); *Dist. A. M. N. H.* (7) x, p. 284 (1902).
Pirates (Lestomerus) cruciatus, *Horv. Term. Füzetek*, iii, p. 148, pl. vii, f. 5 (1879).
Pirates bicoloripes, *Bredd. Abh. Ges. Halle*, xxiv, p. 101 (1901).

Piceous-black; pronotum and scutellum shining olivaceous; trochanters and femora (excluding apices) ochraceous; antennæ pilose, second joint about as long as pronotum, anterior lobe striated much the same as in *P. affinis* but more foveately impressed centrally, posterior pronotal lobe much more distinctly transversely rugulose; anterior and intermediate femora tuberculously spined beneath.

Length 16 to 20 millim.

Hab. Burma; Bhamo, Palon (*Fea*).—Also found in several islands of the Malayan Archipelago; Celebes (*von Hasselt*). North China (*Coll. Dist.*). Shanghai, Hongkong (*Brit. Mus.*).

Although Walker described only the four anterior femora as being "towards the base" "tawny," the whole of the femora are reddish, varying in extent of that coloration from the base.

d. *Legs wholly black or brown.*

1169. **Pirates affinis,** *Serv.* (Peirates) *Ann. Sc. Nat.* xxiii, p. 216 (1831); *Amy. & Serv.* (Lestomerus) *Hém.* p. 323 (1843); *Dist. A. M. N. H.* (7) x, p. 284 (1902).
Lestomerus affinis, var.?, *Walk. Cat. Het.* vii, p. 91 (1873).
Lestomerus piceipennis, *Walk. tom. cit.* p. 92.
Var. Lestomerus diffinis, *Walk. loc. cit.*
Pirates walkeri, *Leth. & Sev. Cat. Gén. Hém.* t. iii, p. 127 (1896).

Piceous-black; pronotum and scutellum shining olivaceous; antennæ pilose, second joint about as long as pronotum; anterior pronotal lobe strongly striate, the striæ longitudinal on disk and oblique on lateral areas, posterior pronotal lobe obscurely transversely rugulose; anterior and intermediate femora somewhat strongly spined beneath.

Var. Connexivum above and beneath sanguineous.

Length 17 to 21 millim.

Hab. Assam; Khási Hills (*Chennell*). Bombay (*Leith*). Burma: Rangoon, Teinzo, Bhamo (*Fea*).—Also recorded from the Malay Peninsula, Cochinchina, Java, and some other islands of the Malayan Archipelago.

1170. **Pirates bicolor**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 61.

Head, anterior lobe of pronotum, and scutellum indigo-black; posterior lobe of pronotum, corium and membrane dark brownish-ochraceous; body beneath and legs dark brownish-ochraceous; anterior femora and tibiæ, intermediate and posterior femora, sternum, central and lateral fasciæ and apex to abdomen dark purplish-brown; antennæ brownish-ochraceous, pilose, basal joint darkest, second joint about as long as pronotum; anterior lobe of pronotum centrally sulcate, the lateral areas irregularly striate; legs and antennæ somewhat strongly pilose; anterior and intermediate femora tuberculously spinous beneath.

Length 19 millim.

Hab. Assam; Nága Hills (*Chennell*).

B. *Anterior femora not spinose beneath.*

a. *Membrane spotted or marked with greyish.*

1171. **Pirates quadrinotatus**, *Fabr.* (Reduvius) *Ent. Syst. Suppl.* p. 544 (1798); *id. Syst. Rhyng.* p. 277 (1803); *Stål* (Spilodermus), *Hem. Fabr.* i, p. 122 (1868).
Peirates biguttatus, *Dohrn, Stett. ent. Zeit.* xxi, p. 407 (1860).

Black, beneath with legs somewhat greyishly sericeous; posterior lobe of pronotum, scutellum, clavus, corium, and posterior lateral margins of prosternum cinnamon-brown; posterior inner area of corium black; membrane with two spots (one anterior, the other posterior) and a line on basal margin white; spots to connexivum above and beneath, apices of coxæ, and bases of intermediate and posterior femora luteous; apex of scutellum distinctly recurved; antennæ pilose, second joint almost as long as pronotum; femora unarmed beneath; spongy furrow to anterior tibiæ not occupying more than about a third of their length.

Length 9 to 10 millim.

Hab. Sylhet (*Stockholm Mus.*). Ceylon (*Green*).

1172. **Pirates arcuatus**, *Stål* (Spilodermus), *Öfv. Vet.-Akad. Förh.* 1870, p. 692; *Dist. A. M. N. H.* (7) x, p. 284 (1902).
Pirates mutilloides, *Walk. Cat. Het.* vii, p. 120 (1873).

Black, moderately griseous-sericeous and pilose; pronotum, scutellum, clavus, and basal half of corium dark cinnamon-brown; an arcuated transverse fascia near base of membrane, and a subapical rounded spot, spots to connexivum above and beneath, coxæ (excluding bases), nearly whole of trochanters, and bases of intermediate and posterior femora greyish flavescent; second joint of antennæ about as long as anterior lobe of pronotum, which is distinctly more or less longitudinally striate.

Length 9½ to 11 millim.

Hab. Sylhet (*Bowring, Brit. Mus.*). Assam; Margherita (*Doherty*). Burma; Karennee, Teinzo, Bhamo, Katha (*Fea*). Tenasserim; Thagata (*Fea*).—Described from the Philippines.—Lethierry and Severin in their Catalogue add China and Japan, but for these localities I possess no confirmation.

1173. **Pirates mundulus**, *Stål, En. Hem.* iv, p. 58 (1874); *Reut. Act. Soc. Sc. Fenn.* xii, p. 311 (1881).

Black; abdomen and hemelytra testaceous; clavus and corium inwardly lurid, and there marked with a black spot; anal segment of abdomen black; membrane fuscous; interior areola and a medial oblique fascia white, before the fascia marked with a black spot, the exterior areola black; the apical spongy furrow to anterior tibiæ occupying little more than a third part of their under surface. In some varieties, perhaps confined to the female sex, the disk of the abdomen beneath is dark fuscous, the connexivum alone being testaceous.

Length 9 millim.

Hab. Tranquebar (*Stockholm Mus.*). Bor Ghát (*Dixon*). Ceylon; Peradeniya (*Green*).

b. *Membrane spotted with black.*

1174. **Pirates atromaculatus**, *Stål* (Cleptocoris), *Öfv. Vet.-Ak. Förh.* 1870, p. 692; *Dist. A. M. N. H.* (7) x, p. 283 (1902).
Pirates sinensis, *Walk. Cat. Het.* vii, p. 114 (1873).

Black, hemelytra piceous; corium with a medial longitudinal ochraceous fascia which is inwardly ampliated and angulated and there margined with black; a large discal spot to membrane and a small spot near base of clavus black; antennæ pilose, second joint about as long as anterior lobe of pronotum; anterior femora unarmed beneath; spongy furrow to anterior tibiæ not occupying much more than a third of their length.

Length 12 millim.

Hab. Assam; Khási and Nága Hills (*Chennell*). Ceylon (*Green*). Burma; Karennee, Katha, Metanga, Schwegoo-Myo (*Fea*).—Also recorded from Java, Philippines (*Semper*), Hongkong (*Bowring, Brit. Mus.*).

c. *Membrane fuscous, unicolorous.*

1175. **Pirates lepturoides**, *Wolff* (Reduvius), *Ic.* iv, p. 165, f. 159 (1804); *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 262.

Piceous-black; corium fuscous-brown, a small spot at inner angle near base of membrane, and the membrane, fuscous; connexivum above and beneath spotted with obscure ochraceous; antennæ pilose, second joint about as long as anterior pronotal lobe, which is centrally longitudinally linearly impressed; anterior femora unarmed beneath; spongy furrow to anterior

tibiæ occupying but little more than a third part of their under surface.

Length 9 to 10½ millim.

Hab. Bombay; Khandála (*Dixon*). Ceylon (*Green*). Burma; Bhamo, Katha (*Fea*).—Also recorded from Java and Borneo.

Lethierry and Severin (Cat. Gén. Hém. t. iii. p. 126) have included *Pirates sinicus*, Walk. (*tinicus* misprint) Cat. Het. vii, p. 121 (1873), as a variety of this species. The type of Walker's species is, however, missing, and is therefore better ignored.

Lestomerus formicarius, Walk. Cat. Het. vii, p. 94 (1873).

The type of this species, described from Burma, is not now to be found in the British Museum. It must therefore, owing to the unreliability of Walker's descriptions, be treated as non-existent.

Genus CATAMIARUS.

Catamiarus, *Amy. & Serv. Hém.* p. 323 (1843); *Stål, Hem. Afr.* iii, p. 113 (1865).

Type, *C. brevipennis*, Serv.

Distribution. Oriental and Ethiopian Regions.

Body broad, robust; pronotum tuberculously granulate, the granulations on anterior lobe being in longitudinal series on disk and in oblique series on lateral areas; head with the anteocular considerably longer than the postocular area, more or less transversely impressed behind eyes; antennæ pilose, first and second joints moderately robust; rostrum stout, second joint much longer than first; pronotum with the anterior angles tuberculously prominent, transversely constricted at about one-third from base, lateral angles subprominent; lateral margins of the abdomen dilated; apex of scutellum robustly elongated; each anterior tibia provided apically with a spongy furrow, which is not much more than a third of its length.

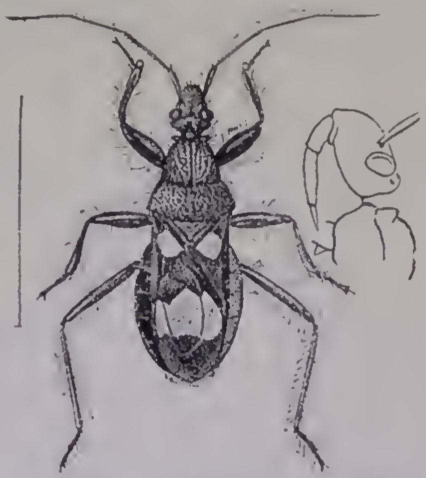

Fig. 196.—*Catamiarus brevipennis.*

1176. **Catamiarus brevipennis**, *Serv.* (Peirates) *Ann. Sc. Nat.* xxiii, p. 217 (1831); *Amy. & Serv. Hém.* p. 323 (1843).

Black; a large, somewhat rounded spot on corium adjoining apex of clavus, and a very large transverse discal spot to membrane ochraceous; head with the lateral margins hirsute;

antennæ pilose, first joint about as long as from insertion to base of head, second as long as anterior lobe of pronotum; legs and margins of body longly pilose or hirsute.

Length 20 to 26 millim.

Hab. Hardwár (*Wood-Mason*). Cutch (*Ind. Mus.*). Madras (*Coll. Dist.*). Mysore (*Ind. Mus.*). Bangalore (*Cameron*).

Genus SIRTHENEA.

Sirthenea, *Spin. Ess. Hém.* p. 100 (1840); *Stål, Hem. Afr.* iii, p. 113 (1865); *id. En. Hem.* iv, p. 56 (1874).
Rasahus (part.), *Amy. & Serv. Hém.* p. 325 (1843).

Type, *S. carinata*, Fabr., a Nearctic species.

Distribution. Nearctic, Neotropical, Ethiopian, and Oriental Regions.

Head long, subporrect, anteocular portion very much the longest; antennæ inserted remotely from eyes; rostrum with the third joint slender and longer than first joint, second at least twice the length of first; pronotum with the apex distinctly sinuate; anterior angles not tuberculate, rounded or subprominent; mesosternum carinate; intermediate tibiæ without a spongy furrow.

1177. **Sirthenea flavipes**, *Stål* (Rasahus), *Öfv. Vet.-Ak. Förh.* 1855, p. 187; *id. En. Hem.* iv, p. 57 (1874); *Dist. A. M. N. H.* (7) x, p. 286 (1902).
Rasahus cumingi, *Dohrn, Stett. ent. Zeit.* xxi, p. 407 (1860).
Pirates strigifer & basiger, *Walk. Cat. Het.* vii, pp. 116, 117 (1873).

Black; head, anterior lobe of pronotum, and disk of abdomen beneath pale castaneous; first joint of antennæ, base of second,

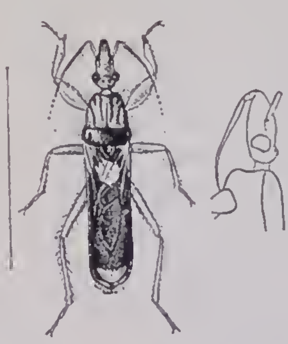

Fig. 197.—*Sirthenea flavipes.*

and third excluding base, base and apex of clavus, base and a subclaval apical spot to corium, apex of membrane, rostrum, legs, spots to connexivum above and beneath, and a large lateral

basal and apical abdominal spot luteous; antennæ pilose, first joint not reaching apex of head, second about as long as anteocular portion of head.

Length 19 to 21 millim.

Hab. Assam; Nága Hills (*Doherty*). Ceylon (*Green*).—Java, Borneo, Philippines. China; Hongkong, Amoy (*Brit. Mus.*). Japan (*Lewis*). Formosa (*Brit. Mus.*).

Subfamily IX. ECTRICHODIINÆ.

Ectrichodiina, *Stål, En. Hem.* iv, p. 4 (1874).

This subfamily is easily recognized by the structure of the scutellum, which has its apex broad, and with two, sometimes three, apical spinous angulations.

It is widely distributed, except in the Palæarctic Region, where it appears to be found only in the extreme eastern province; there are not very many Nearctic representatives, and the Ectrichodiinæ are mainly tropical insects.

Synopsis of Genera.

The primary character for dividing the genera in this subfamily is found in the number of joints of the antennæ. Two genera, *Antiopula*, Stål, and *Quercetanus*, Dist., are only represented by specimens in which these fragile organs are imperfect. They must therefore be left out of this synopsis for the present; but both genera are easily recognized by other characters, and figures are given of both.

A. Antennæ with eight joints.
- a. Scutellum with two apical spinous angulations.
  - *a*. Rostrum with first joint longer than remaining joints together.
    - *a'*. Head long, about as long as anterior femora.
      - *a*². Connexivum with its margin even, not spined .... AUDERNACUS, p. 306.
    - *b'*. Head not prominently elongated.
      - *b*². Connexivum with basal segment spinously produced .. BAYERUS, p. 307.
  - *b*. Rostrum with first joint about as long as remaining joints together . SCADRA, p. 308.
- b. Scutellum with three apical spinous angulations, the middle one minute . ECTRYCHOTES, p. 314.

B. Antennæ with seven joints.
- a. Anterior femora unarmed.
  - *a*. Antennæ with first joint about as long as head; eyes not unusually prominent .... MENDIS, p. 312.
  - *b*. Antennæ with first joint much longer than head; eyes exceedingly prominent .... LIBAVIUS, p. 313.

b. Anterior femora strongly spined near apex .... LABIDOCORIS, p. 313.
C. Antennæ with six joints; anterior femora strongly incrassated.
a. Abdomen above rugose; not globose.
a. Abdomen beneath not longitudinally impressed, or with the first four segments linearly medially impressed .... PHYSORHYNCHUS, p. 318.
b. Abdomen beneath with the first four segments distinctly centrally divided .... STEGIUS, p. 322.
b. Abdomen globose; above levigate, not rugose .... ERIXIMACHUS, p. 323.
D. Antennæ with four joints; anterior femora very slightly incrassated .... VILIUS, p. 324.

Genus ANTIOPULA.

Antiopa, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 47; *id. En. Hem.* iv, p. 56 (1874), nom. præocc.
Antiopula, *Bergr. Rev. d'Ent.* xiii, p. 163 (1894), nom. n.

Type, *A. pumila*, Stål.
Distribution. Ceylon.

Body small; head large, above and beneath convex, behind eyes incrassated, and at base strongly constricted; ocelli moderately prominent; rostrum with the first and second joints subequal in length; antennæ short, first joint shorter than the head, though passing the apex of same, second a little longer than first: pronotum transversely constricted before middle, longitudinally impressed on disk and near lateral angles; scutellum transverse, the lateral apical angles widely separated; legs moderately short; anterior femora a little thickened but unarmed, spongy furrow to anterior tibiæ small.

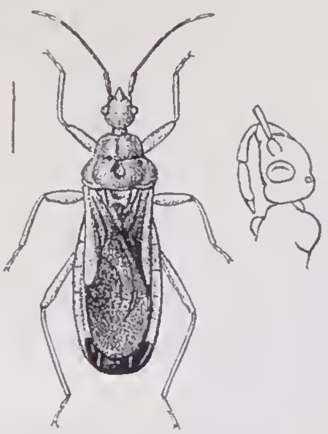

Fig. 198.—*Antiopula pumila.*

1178. **Antiopula pumila,** *Stål* (Antiopa), *Ann. Soc. Ent. Fr.* 1863, p. 47.

Coral-red; antennæ legs and hemelytra fuscous-black, the two apical joints of the antennæ white; lateral margins of corium coral-red; the last dorsal segment of the abdomen, the dorsal lateral margin of the two apical segments, the posterior area of the last segment beneath, and the anal segment black; the longitudinal impressions to the pronotum and the transverse ventral incisures slightly carinate.

Length, ♀, 8 millim.
Hab. Ceylon (*Brit. Mus.*).
Beyond the type in the British Museum, I have not seen another specimen.

Genus AUDERNACUS, nov.

Type, *A. atropictus*, Dist.
Distribution. Burma; Tenasserim; Andaman Islands.
Head long, about as long as anterior femora, anteocular slightly shorter than postocular portion, strongly constricted behind eyes, about halfway from eyes to base it is moderately tumid and then narrowed into a cylindrical collar; antennæ eight-jointed, inserted at less than halfway between eyes and apex, first joint very much shorter than head but considerably passing its apex; rostrum with the first joint longer than remaining joints together. Pronotum with the anterior lobe very much shorter and narrower than the posterior lobe, tumid, and profoundly centrally sulcate; posterior lobe with three longitudinal impressions, one central, and one on each lateral area, the last profound and giving the lateral angles a nodulose appearance. Scutellum scarcely narrowed posteriorly, the apical angulations wide apart; abdomen moderately dilated on each side; legs slender, anterior femora scarcely thickened and unarmed.

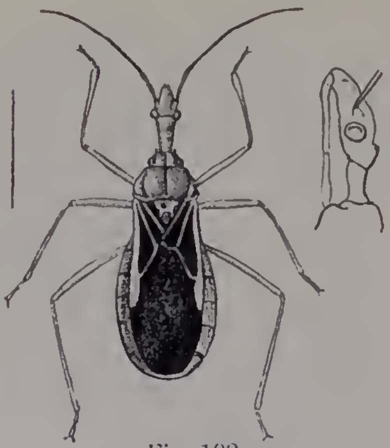

Fig. 199.
Audernacus atropictus.

1179. **Audernacus atropictus,** *Dist.* (Santosia) *Ann. Soc. Ent. Belg.* 1903, p. 62.

Sanguineous; corium (excluding lateral margins, apex, and veins) fuscous; membrane black; antennæ becoming fuscous towards apex; anterior angles of pronotum moderately tuberculous; pronotum with both lobes centrally sulcate, posterior lobe sulcate on each lateral area and foveate near each lateral angle; connexivum broad; head longer than the pronotum.
Length 12 millim.
Hab. Burma; Karennee (*Fea*). Tenasserim; Plapoo (*Fea*).

1180. **Audernacus andamanensis,** sp. n.

Coral-red; corium reddish-testaceous, clavus and a subclaval streak to corium ochraceous; membrane black, its basal margin

ochraceous; antennæ with the basal joint coral-red, remaining joints fuscous; abdomen mutilated in specimen described; tarsi fuscous.

Length 15 millim.

Hab. Andaman Islands (*Brit. Mus.*).

An imperfect specimen in the British Museum is the type of this very distinct species.

Genus BAYERUS, nov.

Type, *B. cuneatus*, Dist.

Distribution. Assam.

Antennæ apparently eight-jointed, first joint longer than head and longly passing its apex; head stout, broad, somewhat tumid behind eyes, with a short distinct collar; rostrum with the basal joint longer than the two apical joints together; pronotum with the anterior lobe narrower than the posterior, distinctly sculptured and profoundly centrally sulcate, posterior lobe with three longitudinal impressions, one central and one on each lateral area, lateral angles rounded and nodulose; scutellum distinctly narrowed posteriorly, foveate at base, the two apical spinous angles inwardly curved and not widely separated; basal segment of the connexivum somewhat strongly spinously produced; anterior tibiæ with a very short and subobsolete apical spongy furrow.

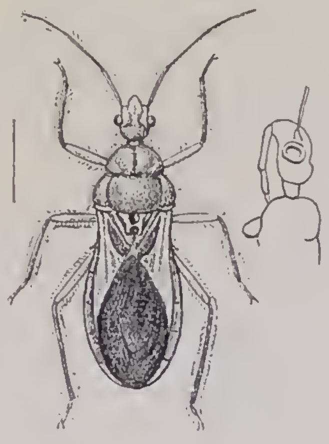

Fig. 200.
Bayerus cuneatus.

1181. Bayerus cuneatus, sp. n.

Sanguineous; antennæ, disk of scutellum, clavus and broad claval streak on corium, and tibiæ (excluding extreme bases and apices) fuscous; membrane black; antennæ longly pilose, base of first joint sanguineous, second a little longer than first; legs somewhat longly pilose.

Var. Legs entirely sanguineous; claval fuscous streak on corium angularly dilated posteriorly.

Length 9 millim.

Hab. Assam; Nága Hills (*Chennell*).

The type, a specimen without locality belonging to the Atkinson Collection, is in the British Museum.

Genus SCADRA.

Scadra, *Stål, Öfv. Vet.-Ak. Förh.* 1859, pp. 176 & 182 ; *id. En. Hem.* iv, p. 48 (1874).

Type, *S. lanius*, Stål, a Malayan species.

Distribution. Oriental Region.

Head ovate, behind eyes a little narrowed, collar short ; antennæ eight-jointed, basal joint slightly shorter than head but longly passing its apex ; pronotum before middle transversely constricted, the impression rugose, posterior lobe obsoletely rugulose ; scutellum laterally narrowed, the apical spinous angles a little directed inwardly ; legs slender, anterior femora moderately incrassated, unarmed, anterior tibiæ provided with a short apical spongy furrow ; posterior tarsi with the third joint longest ; rostrum with the basal joint about as long as remaining joints together.

A. *Neither antennæ nor tibiæ annulated.*

1182. **Scadra fuscicrus**, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 183.

Rufous-testaceous ; antennæ, a large spot on interior area of corium, membrane, three segmental spots to the ventral segments (one medial and one near each lateral margin), and the tibiæ black or piceous ; tarsi ochraceous, apical joint fuscous.

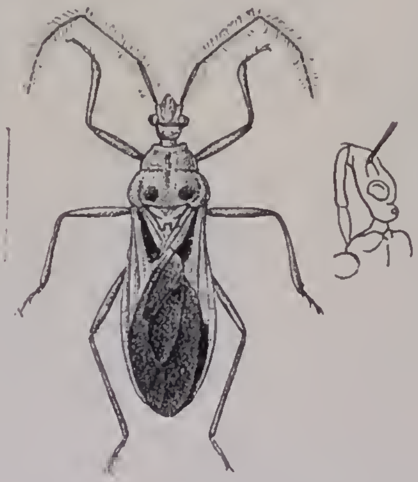

Fig. 201.—*Scadra fuscicrus.*

Var. *a.* Posterior lobe of pronotum with two piceous spots.

Var. *b.* Resembling var. *a*, but without the central series of ventral spots.

Length $10\frac{1}{2}$ to $13\frac{1}{2}$ millim.

Hab. Ceylon (*Green, Brit. Mus.*). Burma ; Bhamo (*Fea*).

1183. **Scadra relata,** *Dist. Ann. Soc. Ent. Belg.* 1903, p. 62.

Reddish-ochraceous; disk of scutellum, corium (excluding apex and lateral margins), membrane, and lateral areas of meso- and metasterna piceous or black; second joint of antennæ a little longer than the first, remainder mutilated; anterior lobe of pronotum much shorter than posterior lobe, which has the three sulcations very distinctly granulate; abdomen distinctly widened from a little beyond base and then narrowed to apex; posterior femora slightly incrassate at apex; tarsi ochraceous.

Length 10 millim.

Hab. Burma; Karennee. Arakan.

1184. **Scadra tibialis,** sp. n.

Reddish-testaceous; eyes, antennæ, corium, and apical halves of tibiæ fuscous; disk of posterior lobe of pronotum pale fuscous; basal disk of scutellum, membrane, a lateral segmental series of spots and anal segment of abdomen black; sternum castaneous; lateral and posterior margins of corium and connexivum ochraceous; antennæ longly pilose, base of first joint red; impressions to posterior lobe of pronotum rugose.

Length 11 millim.

Hab. Assam; Sadiya, Margherita (*Coll. Dist.*).

B. *Antennæ not, but tibiæ annulated.*

1185. **Scadra scutellaris,** sp. n.

Luteous; apex, disk beneath and collar of head, antennæ, basal joint of rostrum, scutellum, sternum and legs black; abdomen beneath reddish-ochraceous, with a broad black sublateral margin which does not reach apex; posterior margin of prosternum luteous; connexivum above and beneath luteous, its extreme margin ochraceous; membrane pale fuscous, its apical margin ochraceous; tibiæ with a subbasal luteous annulation; body broad, robust; impressions to posterior pronotal lobe transversely rugose.

Length 10 millim.

Hab. Assam; Khási Hills (*Chennell*).

C. *Tibiæ not, but antennæ annulated.*

1186. **Scadra annulicornis,** *Reut. Act. Soc. Sc. Fenn.* xii, p. 309 (1881).

Black, glabrous; posterior lobe of pronotum, the whole of corium and dorsal surface of abdomen, connexivum above and beneath coral-red; third joint of antennæ with a pale flavescent basal annulation.

Reuter describes this species as allied to *S. fuscicrus*, Stål, but besides the different coloration, the stature is more robust, the posterior pronotal lobe more strongly rugose, and the impressions distinctly carinulate.

Length, ♂, 11 millim.

Hab. Ceylon (*Nietner, Berlin Mus.*).

A mutilated specimen from Ceylon is also contained in the British Museum.

1187. **Scadra maculiventris**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 46.

Coral-red; antennæ, base of scutellum, corium (excepting lateral margin dilated at base and apex), meso- and metasterna, three ventral segmental series of spots (one central and one near each lateral margin, the last united on apical segment), and the legs black; pronotum with two spots on anterior and two larger spots on posterior lobe olivaceous-black; third joint of antennæ with a pale greyish basal annulation; coxæ and trochanters coral-red; extreme margin of connexivum luteous.

Length 11 millim.

Hab. "North India" (*Brit. Mus.*).

D. *Both antennæ and tibiæ annulated.*

1188. **Scadra cincticornis**, *Kirby, J. Linn. Soc., Zool.* xxiv, p. 119 (1891).

Sanguineous; corium dull reddish-testaceous; connexivum reddish-piceous; antennæ, two spots on posterior lobe of the pronotum, a large obtuse-triangular spot on inner angle of corium, membrane, three longitudinal series of large spots to abdomen beneath (one central, the other two lateral), tibiæ and last joint of tarsi black; a subbasal annulation to second and third joints of antennæ and a subapical annulation to posterior tibiæ luteous; longitudinal impressions to posterior lobe of pronotum strongly rugulose.

Length $12\frac{1}{2}$ to 13 millim.

Hab. Ceylon (*Green & Lewis*). Burma; Karennee (*Fea*).

1189. **Scadra annulipes**, *Reut. Act. Soc. Sc. Fenn.* xii, p. 309 (1881).

Dull flavous-testaceous; antennæ, a spot on each side of posterior pronotal lobe, a triangular spot on interior area of corium, membrane, abdomen above, last ventral segment and a lateral ventral series of round spots, three annulations to tibiæ (basal, medial, and apical), and apices of tarsi black or piceous; third joint of antennæ with a subapical white annulation: scutellum wholly testaceous; connexivum not spotted.

Length $13\frac{1}{2}$ millim.

Hab. Calcutta (*Stockholm Mus.*).

Genus **QUERCETANUS**, nov.

Type, *Q. atromaculatus*, Dist.

Distribution. Oriental Region.

Head robust, anteriorly narrowed behind, eyes also compressed,

collar short, ante- and postocular areas subequal in length; first joint of antennæ shorter than head but passing its apex, second joint considerably longer than first; rostrum with the first and second joints subequal in length, or second slightly shortest; pronotum with the anterior lobe considerably narrower than the posterior, shorter in length, moderately wrinkled, centrally longitudinally incised, posterior lobe with three longitudinal incisions, one central and one on each lateral area, the lateral margins nodulose; scutellum transverse, not prominently narrowed, apical spinous angles wide apart; connexivum moderately prominent; membrane reaching or slightly passing the abdominal apex; anterior femora very slightly thickened; anterior and intermediate tibiæ with a short apical furrow.

1190. **Quercetanus atromaculatus**, sp. n.

Dull sanguineous; central incision to anterior lobe and two large discal spots to posterior lobe of pronotum, corium (excepting base and lateral margins), membrane, a linear spot near anterior coxæ and a similar spot behind them, a spot behind intermediate coxæ, the abdominal stigmata, and spots to connexivum black; abdomen beneath reddish-piceous; antennæ with the first and second joints fuscous (remaining joints mutilated in specimen described), base of first joint red.

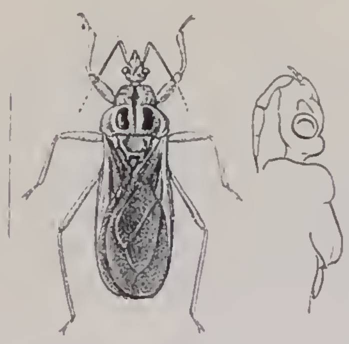

Fig. 202.—*Quercetanus atromaculatus.*

Length 16 millim.

Hab. Western Indian Province (*Atkinson, Brit. Mus.*).

1191. **Quercetanus relatus**, sp. n.

Dull sanguineous; corium (excepting base), lateral margin and apical angle, membrane, a tibial annulation near base, a very obsolete annulation near apices of intermediate and posterior femora, and a central spot to scutellum black; first and second joints of antennæ black, (remaining joints mutilated in specimen described); connexivum unicolorous, unspotted.

Length 16 millim.

Hab. Ceylon (*Brit. Mus.*).

Genus MENDIS.

Mendis, *Stål, Öfr. Vet.-Ak. Förh.* 1859, pp. 175 & 180; *id. En. Hem.* iv, p. 46 (1874).

Type, *M. semirufus*, Stål, a Malayan species.

Distribution. Oriental Region and China.

Head oval, behind eyes distinctly narrowed, collar short; antennæ seven-jointed, first joint about as long as head and passing its apex; rostrum with the first and second joints subequal in length; pronotum transversely constricted before middle, and longitudinally impressed centrally and on each posterior lateral area; scutellum a little narrowed posteriorly, subtransverse, apical spinous angles situate widely apart; hemelytra about equal in length to abdomen; metasternum with four carinæ; ventral incisures rugose; legs slender, anterior femora slightly incrassated and unarmed, anterior tibiæ provided with a short apical spongy furrow.

1192. **Mendis bicolor,** *Dist. Ann. Soc. Ent. Belg.* 1903, p. 62.

Fig. 203.—*Mendis bicolor.*

Sanguineous; antennæ, apical margins of head, eyes, ocelli, hemelytra, apical margin of abdomen above, meso- and metasterna, legs and apex of abdomen black; body elongate, slender; hemelytra not quite reaching apex of abdomen; tarsi ochraceous; abdominal incisures transversely rugose.

Length 11 millim.

Hab. Ceylon; Peradeniya (*Green*).

1193. **Mendis nigripennis,** *Fabr.* (Reduvius) *Ent. Syst.* iv, p. 196 (1794); *id. Syst. Rhyng.* p. 269 (1803); *Stål, Hem. Fabr.* i, p. 117 (1868).
Mendis sanguinaria, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 301.

Coral-red, shining; hemelytra opaquely, lateral spots to pro-, meso- and metasterna, apex of abdomen, and apices of tibiæ black; exterior margin of corium (its apex dilated) coral-red, shining; lateral margins of corium dilated at apices, apical margins of the segments to upper surface of abdomen, subtriangular marginal spots, vitta anteriorly narrowed and interrupted at incisures, and sixth abdominal segment coral-red; connexivum at apices of segments narrowly fasciated with black; antennæ black, basal joint coral-red, its apex fuscous; tarsi fuscous.

Length 13 to $15\frac{1}{2}$ millim.

Hab. "India orientalis" (*fide Stål*).

I have not seen this species.

Genus **LIBAVIUS**, gen. nov.

Type, *L. greeni*, Dist.

Distribution. Ceylon.

Head broad, narrowed behind eyes, which are very prominent; antennæ longly pilose, apparently seven-jointed, first joint much longer than head, about as long as pronotum, first and second joints subequal in length; rostrum with the first and second joints subequal in length. Pronotum with the anterior lobe much shorter and narrower than the posterior lobe, tumid, sculptured, profoundly centrally sulcate; posterior lobe with three broad and deep longitudinal impressions, one central and one on each lateral area. Scutellum transverse, scarcely narrowed behind, the apical spinous angles situate wide apart; abdomen slightly dilated, the posterior segmental angles to the connexivum tuberculous; anterior femora moderately incrassated, anterior tibiæ with a short apical spongy furrow.

Fig. 204.—*Libavius greeni.*

1194. **Libavius greeni**, sp. n.

Reddish-ochraceous; head, anterior lobe of pronotum, and body beneath brownish-ochraceous; corium luteous; membrane black, its basal margin luteous; antennæ luteous, longly pilose, first and second joints subequal in length; veins and apical angle to corium tinged with reddish.

Length 12 millim.

Hab. Ceylon (*Green*).

Genus **LABIDOCORIS**.

Labidocoris, *Mayr, Verh. z.-b. Ges. Wien*, xv, p. 440 (1865); *Stål, En. Hem.* iv, p. 46 (1874).

Type, *L. elegans*, Mayr.

Distribution. India, China, and Japan.

Head short, broad, central lobe between antennæ compressed and elevated; antennæ seven-jointed, first joint longer than head; rostrum with the first and second joints subequal in length; pronotum with the anterior lobe profoundly sulcated and with two minute tubercles; scutellum slightly narrowed posteriorly, apical spines wide apart, segmental incisures strongly rugose; anterior femora strongly spined beneath near apex; intermediate and posterior femora obsoletely tuberculous near apex; anterior tibiæ with a minute subobsolete apical spongy furrow.

1195. **Labidocoris elegans**, *Mayr, Verh. z.-b. Ges. Wien*, xv, p. 440 (1865); *Stål, En. Hem.* iv, p. 52 (1874); *Reut. Act. Soc. Sc. Fenn.* xii, p. 304 (1881).

"Sanguineous; antennæ and hemelytra black, opaque; base, lateral margin, and apex of corium sanguineous; antennæ longly pilose."

Length 9½ millim.

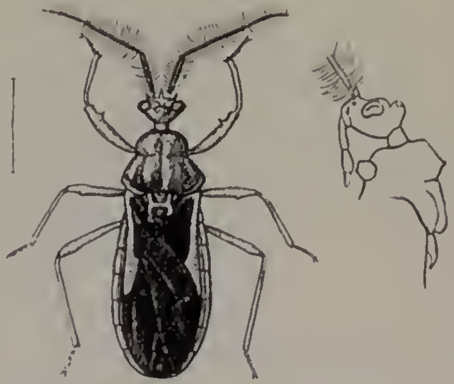

Fig. 205.—*Labidocoris elegans.*

Hab. Tranquebar (*fide Reuter*).

Dr. Mayr's typical specimen was without locality, and has been kindly lent to me for figuring by Dr. Handlirsch, of the Vienna Museum. Reuter was able to determine the occurrence of this species at "Tranquebar," and thus authenticate its presence in this fauna.

Genus ECTRYCHOTES.

Ectrychotes, *Burm.* (part.) *Handb.* ii, p. 237 (1835); *Stål, En. Hem.* iv, p. 46 (1874).
Loricerus, *Hahn* (part.), *Wanz. Ins.* i, pl. v (1831).
Larymna, *Stål, Öfv. Vet.-Ak. Förh.* 1859, pp. 176 & 183.

Type, *E. pilicornis*, Fabr.

Distribution. Oriental Region, China and Japan.

The principal distinguishing character of this genus may be found in the scutellum, which possesses a small intermediate apical spinous angulation; pronotum with a strong central sulcation continued from the anterior lobe to the disk of the posterior lobe; the four anterior dorsal segments of the abdomen are laterally at base and apex, and the fifth at base, transversely impressed; ventral incisures strongly carinulate; antennæ with eight joints.

A. *Pronotum not unicolorous.*

a. *Anterior and posterior pronotal lobes differently coloured.*

1196. **Ectrychotes pilicornis**, *Fabr.* (Reduvius) *Mant.* ii, p. 311 (1787); *Mayr* (Larymna), *Reise Novara, Hem.* p. 156 (1866); *Stål* (Larymna), *Hem. Fabr.* i, p. 118 (1868).

Coral-red; head, anterior lobe of pronotum, sternum, legs,

transverse fasciæ (not reaching lateral margins) to fourth and fifth ventral segments, and the sixth and anal segments bright bluish-black; antennæ, about apical half of clavus, interior area of corium, membrane, and a spot on last dorsal abdominal segment black; coxæ, trochanters, bases of anterior and intermediate femora, and nearly basal half of posterior femora and the tarsi coral-red, apices of tarsi black.

Length 12 to 13 millim.

Hab. "Tranquebar" (*Copenhagen Museum*).

A specimen without locality is also contained in the British Museum.

b. *Lateral areas of posterior pronotal lobe palely coloured.*

1197. **Ectrychotes dispar**, *Reut. Act. Soc. Sc. Fenn.* xii, p. 304 (1881).

Shining violaceous; antennæ and hemelytra piceous; lateral areas of the posterior lobe of pronotum, scutellum (entirely or sometimes excepting base), base of clavus and corium, lateral margins of corium (broadening at apical angles), connexivum, apices of coxæ, trochanters, basal half of posterior femora, bases of tarsi, and abdomen coral-red; apex of abdomen beneath, and sometimes segmental sutural fasciæ, violaceous.

Fig. 206.—*Ectrychotes dispar.*

Length 12 to 14 millim.

Hab. Calcutta (*Stockholm Mus.*). Bombay (*Leith*). Bangalore (*Cameron*).

The coral-red coloration in some specimens shows signs of fading into ochraceous. From Reuter's description, he seems to have examined faded specimens.

1198. **Ectrychotes rufescens**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 63.

Head, pronotum, scutellum and sternum olivaceous-black, shining; lateral margins of posterior lobe of pronotum, basal angle of corium, body and legs sanguineous; hemelytra, spots to connexivum (on fourth and fifth segments in male, on third, fourth and fifth segments and apex in female), large lateral spots to third, fourth and fifth segments, the disk of sixth segment and the anal segment to abdomen beneath, central annulations to intermediate and posterior femora, and apices of intermediate and posterior tibiæ black; extreme base of antennæ ochraceous; central sulcation to pronotum broad and foveate.

Length 10 to 12 millim.
Hab. Burma; Bhamo, Teinzo (*Fea*).
Allied to *E. dispar*, Reut.

1199. **Ectrychotes cupreus**, *Reut. Act. Soc. Sc. Fenn.* xii, p. 303 (1881).

Cupreous, shining: lateral margins of posterior lobe of pronotum, narrow bases of clavus and corium, lateral margin of corium nearly to middle, apex of corium, some basal suffusion to membrane, and connexivum ochraceous, the last with apical halves of segments 3–5 black; dorsal surface of abdomen coral-red, the two apical segments black; abdomen beneath dark ochraceous, basal margin and segmental sutural fasciæ (widened laterally) shining cupreous; tarsi testaceous; corium black, apex and membrane dark fuliginous.

Var. Red; head, pronotum, first joint of antennæ, rostrum, scutellum, sternum and legs shining cupreous: connexivum with the fourth and fifth segments apically black.

Length 10 to $10\frac{2}{3}$ millim.

Hab. Bengal (*Copenhagen Mus.*).—Java; Bantam.

Reuter states that his variety is found in Bengal, and the typical form in Java.

1200. **Ectrychotes scutellaris**, *Bredd.* (Ectrichodia) *Zool. Anz.* xxvi, p. 512 (1903).

Head, pronotum and sternum shining coppery green; basal joint (sometimes the whole) of antennæ, lateral margins of posterior lobe of pronotum, scutellum, corium, connexivum, abdomen beneath, rostrum and legs luteous; corium with a large chocolate-brown spot occupying the whole of disk and clavus (excepting base, lateral margin and apex), the apex and membrane dark fuliginous; spots to connexivum above and beneath, segmental sutures, sublateral areas and anal segment to abdomen beneath, about apical halves (sometimes nearly whole) of femora, bases and apices of tibiæ, and the tarsi coppery brown or green.

Length 9 to 11 millim.

Hab. Sikhim (*Brit. Mus.*). Assam; Margherita (*Coll. Dist.*), Khási Hills (*fide Breddin*).

B. *Pronotum unicolorous.*

a. *Pronotum blackish or violaceous.*

1201. **Ectrychotes crudelis**, *Fabr.* (Reduvius) *Syst. Rhyng.* p. 269 (1803); *Mayr* (Larymna), *Reise Novara, Hem.* p. 157 (1866); *Stål* (Larymna), *Hem. Fabr.* i, p. 118 (1868).

Brassy or violaceous black; antennæ and hemelytra black, opaque; base of corium and clavus, abdomen beneath, trochanters, bases of anterior and intermediate femora, basal third of posterior femora, and connexivum coral-red; dorsal disks of last two abdominal

segments black; abdomen beneath with the sixth and anal segments and generally with incisural segmental fasciæ violaceous-black. In some specimens the connexivum is ochraceous, not coral-red.

Length 11 to 12 millim.

Hab. Tranquebar. Burma; Rangoon, Palon, Bhamo, Toungoo (*Fea*).—Malay Peninsula; Perak (*Coll. Dist.*).

1202. **Ectrychotes abbreviatus,** *Reut. Act. Soc. Sc. Fenn.* xii, p. 303 (1881).

Head, pronotum, and scutellum brassy-black; antennæ and rostrum black; sternum and legs violaceous-black; trochanters and bases of femora coral-red; anterior femora with an anterior vitta near apex, and the anterior tibiæ anteriorly and beyond middle, dull ochraceous; hemelytra black, opaque; base of clavus and corium, lateral margins of corium either wholly or abbreviated, coral-red; abdomen coral-red, the last two dorsal segments black and densely punctate, opaque; connexivum coral-red; abdomen beneath with the apex, lateral segmental areas, and sometimes with segmental sutural fasciæ violaceous-black. In the female the hemelytra are abbreviated and do not pass the penultimate segment.

Length 10 to 11½ millim.

Hab. Calcutta (*Coll. Dist.*).

b. *Pronotum coral-red.*

1203. **Ectrychotes atripennis,** *Stål* (Larymna), *Öfv. Vet.-Ak. Förh.* 1866, p. 302; *Dist. A. M. N. H.* (7) x, p. 291 (1902).
Ectrichodia ophirica, *Walk. Cat. Het.* viii, p. 51 (1873).
Scadra ophirica, *Leth. & Sev. Cat. Gén. Hém.* t. iii, p. 133 (1896).
Ectrychotes atripennis, var., *Dist. A. M. N. H.* (5) xi, p. 170 (1883).

Coral-red, shining; antennæ becoming fuscous towards apex, in some varieties fuscous with the base alone red; hemelytra (excluding base and a marginal line from base to middle), three large lateral segmental spots to sternum, and a lateral fascia to abdomen beneath (neither reaching base nor apex) black. In one variety examined the segmental sutures and anal segment are also black.

Length 11 to 12 millim.

Hab. Mergui (*Anderson*). Tenasserim (*Coll. Dist.*).—Malacca, Borneo (*Brit. Mus.*).

1204. **Ectrychotes comottoi,** *Leth. Ann. Mus. Civ. Gen.* xviii, p. 649 (1883).

Coral-red; antennæ (excluding basal joint), the whole inner area of corium (excluding base, lateral margin, and apex), membrane, meso- and metasterna, central transverse segmental fasciæ in ♂, and incisural segmental fasciæ in ♀ black. In the ♀ the apical and anal segments are black and the hemelytra do not reach the apex of the abdomen.

Length 12 to 13 millim.

Hab. Burma; Minhla (*Comotto*), Karen Hills (*Doherty*), Karennee (*Fea*). Mergui (*Coll. Dist.*).

1205. **Ectrychotes nigripes**, *Leth. Ann. Soc. Ent. Belg.* xxxv, *Bull* p. cxliv (1891).

Coral-red, shining; head beneath, rostrum, antennæ, base and disk of scutellum, sternum, clavus, membrane, longitudinal fascia on each side of abdomen extending beyond middle, and the legs black; connexivum coral-red.

Length 11 millim.

Hab. Bengal; Tetara (*fide Lethierry*).

I have not seen this species.

Genus **PHYSORHYNCHUS**.

Physorhynchus, *Amy. & Serv. Hém.* p. 342 (1843); *Stål, En. Hem.* iv, p. 46 (1874).
Loricerus, *Hahn, Wanz. Ins.* i, pl. v, f. 20 A-E (1831).
Glymmatophora, *Stål, Öfv. Vet.-Ak. Förh.* 1853, p. 261.
Ectrichodia, *Stål, Hem. Afr.* iii, pp. 101 & 103 (1865).
Subg. Hæmatorrhophus and Glymmatophora, *Stål, En. Hem.* iv, pp. 49, 50 (1874).

Type, *P. crux*, Thunb., an Ethiopian species.

Distribution. Ethiopian and Oriental Regions.

Body oblong, ovate; head ovate, deflected, collar short; rostrum incrassate, first and second joints subequal in length, second joint tumid; antennæ six-jointed, in the males long, in the females shorter and much less pilose, first joint about equal in length to head; pronotum transversely constricted, longitudinally impressed centrally and on each lateral area; scutellum with the apex broad, truncate, and bispinously angulated; anterior femora somewhat strongly incrassated, and spinous or tuberculous beneath; anterior tibiæ provided with an apical spongy furrow; abdominal spiracles elongate.

Some of the species included in this genus, which have the abdomen beneath centrally impressed, may really belong to undescribed genera; but as I possess only female specimens, I prefer to abstain from founding new genera on such material.

A. *Hemelytra in male fully developed.*

a. *Posterior pronotal lobe broader than anterior.*

α. *Pronotal lobes in male equally long.*

1206. **Physorhynchus marginatus**, *Reut. Act. Soc. Sc. Fenn.* xii, p. 301 (1881); *Dist. A. M. N. H.* (7) x, p. 292 (1902).
Ectrichodia discrepans, *Walk.* (part.) *Cat. Het.* viii, p. 46 (1873).

♂. Violaceous-black; hemelytra black, opaque, base and lateral margins of corium violaceous-black; last two joints of rostrum and

extreme posterior margins of pro- and mesosterna fuscous; lateral margins of connexivum and principal part of the dorsal surface of

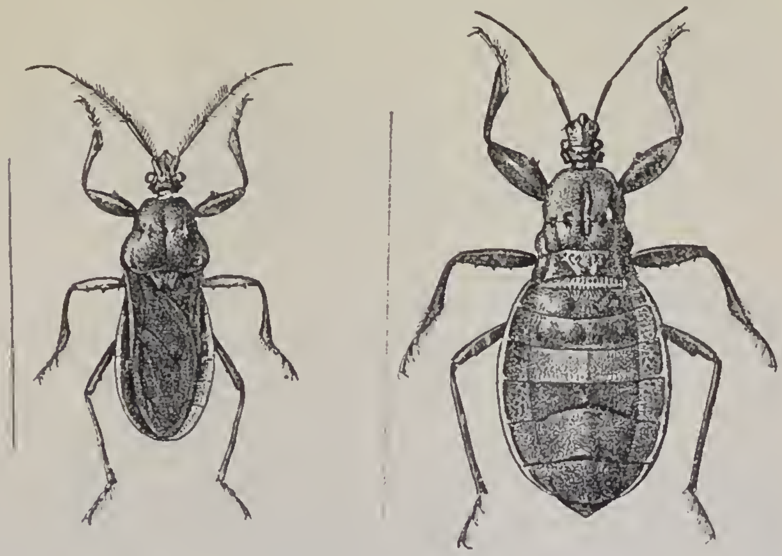

Fig. 207.—*Physorhynchus marginatus*, ♂ & ♀.

abdomen sanguineous, the incisures black; abdomen beneath with the disks of the third, fourth, and fifth segments sanguineous.

Var. The whole of the connexivum (excluding incisures) sanguineous.

♀. Apterous; dorsal surface of abdomen violaceous-black; lateral margins of the connexivum sanguineous.

Antennæ with the second joint a little longer than the first; in the male the pronotal lobes of about equal length, in the female the anterior lobe much the longest; dorsal surface of abdomen irregularly transversely rugose.

Length, ♂, 26 to 30, ♀ 30 to 40 millim.

Hab. Bengal (*fide Reuter*). Assam; N. Khási Hills (*Chennell*). Margherita (*Doherty*). Burma (*Coll. Dist.*). Karennee (*Fea*).

b. Anterior pronotal lobe in male longer than posterior lobe.

1207. **Physorhynchus linnæi**, *Stål* (Ectrichodia), *Öfv. Vet.-Ak. Förh.* 1859, p. 178; *id.* (Hæmatorrhophus) *En. Hem.* iv, p. 49 (1874); *Reut. Act. Soc. Sc. Fenn.* xii, p. 300 (1881); *Dist. A. M. N. H.* (7) x, p. 292 (1902).

Ectrichodia discrepans, *Walk.* (part.) *Cat. Het.* viii, p. 46 (1873).

♂. Violaceous-black; hemelytra black, opaque; base and lateral margins of corium violaceous-black; abdomen sanguineous, the anal segment violaceous-black; apices of tarsi and the tibiæ clothed with long ochraceous hairs; antennæ black, longly pilose, apical joints fuscous, second joint longer than the first; connexivum

dull testaceous; anterior pronotal lobe a little longer than the posterior; abdomen above transversely rugose.

Length, ♂, 23 to 24 millim.

Hab. Ceylon; Peradeniya (*Green*).

I have not seen the female of this species.

B. *Hemelytra in both sexes abbreviated or practically absent.*

b. *Pronotal lobes about equal in breadth; anterior lobe longer than posterior in both sexes.*

a. *Second joint of antennæ longer than first.*

1208. **Physorhynchus pedestris**, sp. n.

Brilliant shining violaceous-black; antennæ, rostrum, coxæ, trochanters, and legs brilliant shining purplish-brown; second joint of antennæ longer than first; anterior lobe of pronotum longer than the posterior in both sexes, lobes about equally broad and both traversed by a central longitudinal linear incision; abdomen above transversely rugose, almost lævigate on central longitudinal disk; anterior femora strongly incrassated and with a strong tubercle beneath near base; hemelytra very rudimentary, or practically absent, in both sexes.

Length, ♂ and ♀, 22 millim.

Hab. Utakamand (*Coll. Dist.*).

b. *First and second joints of antennæ subequal in length.*

1209. **Physorhynchus nigroviolaceus**, *Reut. Act. Soc. Sc. Fenn.* xii, p. 302 (1881).

♂ & ♀. Brilliant shining violaceous-black; antennæ (excepting first joint) black, opaque; last two joints of rostrum, tibiæ above, and tarsi brownish-piceous; hemelytra very rudimentary in male, practically absent in female; antennæ in male obsoletely pilose (*fide Reuter*), first and second joints equally long; abdomen above irregularly transversely rugose; legs concolorous.*

Length, ♂ 23 millim. (*fide Reuter*), ♀ 23 to 29 millim.

Hab. Utakamand (*Indian Mus.*). Bangalore (*Coll. Dist.*).

1210. **Physorhynchus tuberculatus**, *Stål* (Hæmatorrhophus), *En. Hem.* iv, p. 49 (1874); *Reut. Act. Soc. Sc. Fenn.* xii, p. 300 (1881).

♂. Violaceous-black, somewhat shining; lateral margins of

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* Kirkaldy (J. Bomb. N. H. Soc. xiv, p. 300, 1902) has described a species from "India" under the name of *Ectrichodia horrenda*. The types are stated to be in "Colls. Edwards & Kirkaldy." Mr. Edwards tells me he knows nothing of it, and its describer has taken his types with him to the Sandwich Islands. It seems to be near this or the preceding species, and I have not ventured to include it.

connexivum usually but not always sanguineous; abdomen unicolorous; hemelytra abbreviated, practically absent; apices of tibiæ and the tarsi clothed with long ochraceous hairs; pronotum with the anterior lobe longer than the posterior, the lobes about equally broad; first and second joints of antennæ subequal in length.

♀. Resembling male in coloration; apterous.

Length, ♂ 30, ♀ 28 to 35 millim.

Hab. Assam; Nága Hills, Khási Hills (*Chennell*). Ceylon; Peradeniya (*Green*). Burma; Bhamo (*Fea*).

C. *Female alone known. Hemelytra practically absent.*

a. *First four ventral segments centrally longitudinally impressed.*

a. Body elongate.

1211. **Physorhynchus malabaricus**, sp. n.

♀. Head, pronotum, legs, and body beneath black; abdomen above purplish-brown, opaque, coarsely rugose; abdomen beneath with the disks of the third, fourth, and fifth segments dull sanguineous; antennæ reddish-brown, somewhat obsoletely or very sparingly pilose, first and second joints subequal in length; anterior lobe of pronotum much longer than posterior, both lobes about equally broad; apices of the scutellum very tuberculously spinous and directed obliquely upwards; anterior femora strongly incrassated, with an ill-defined tubercle at about centre of under surface first four ventral segments centrally longitudinally impressed.

Length, ♀, 26½ millim.

Hab. Malabar (*Coll. Dist.*).

b. Body short, broad.

1212. **Physorhynchus talpus**, sp. n.

♀. Black, opaque, thickly, finely, greyishly sericeous; antennæ with the first and second joints black, subequal in length, remaining joints fuscous; anterior lobe of pronotum strongly tumidly convex, with a central longitudinal linear impression, very much longer than anterior lobe; hemelytra practically absent; abdomen short, broad, tumid beneath, moderately flat above, the spiracles and a discal central transverse spot at the junction of the fourth and fifth segments piceous; tibiæ beneath at apices, and the under surface of tarsi, ochraceously pilose; abdomen above with the first and second segments rugose, remaining segments thickly, finely rugulose; abdomen beneath with the first four segments centrally longitudinally impressed.

Length, ♀, 22 millim.

Hab. Cachar (*Coll. Dist.*).

b. *Ventral segments not medially impressed.*

1213. **Physorhynchus insignis**, sp. n.

♀. Shining dark bronzy olivaceous-brown; lateral angles of posterior pronotal lobe, apex and apical spines of scutellum, dorsal segmental incisures, lateral segmental rounded spots to connexivum, rostrum, coxæ, trochanters, bases and apices of femora, the tibiæ and tarsi, central discal transverse segmental fasciæ, lateral spots and lateral marginal spots to abdomen beneath luteous; antennæ and anterior legs mutilated in specimen described; anterior pronotal lobe moderately tumid, posteriorly discally foveate, lateral margins rounded and about twice the length of posterior lobe; abdomen above sparingly rugulose; connexivum with the basal angles of the segments a little nodulose. Abdomen beneath not centrally impressed.

Length, ♀, 13 millim.

Hab. Nága Hills (*Chennell*).

1214. **Physorhynchus rubromaculatus**, sp. n.

♀. Head, antennæ, rostrum, legs, and sternum black; abdomen beneath shining violaceous-black, above somewhat dull violaceous-black; lateral margins of connexivum above and beneath, two central spots on each abdominal segment, of which the basal are smallest and the apical largest, and the last segment of the abdomen (excluding base) reddish-testaceous; antennæ with the second joint slightly longer than the first; pronotum with the anterior lobe much longer than the posterior, but about equal in breadth, its lateral margins rounded, its disk finely centrally impressed, posterior lobe obscurely transversely striate, centrally finely impressed and foveate near each lateral angle; hemelytra practically absent; abdomen broad, margins rounded, above rugose, excepting extreme central disk which is very finely and obscurely transversely striate beneath, not centrally impressed.

Length, ♀, 28 millim.

Hab. Nilgiris (*Brit. Mus.*).

Genus **STEGIUS**, nov.

Type, *S. pravus*, Dist.

Distribution. Bengal.

♀. Broadly subovate; head broad, anteocular much longer than postocular area, in front of eyes obliquely descending on each side from a somewhat broad central carination, behind eyes transversely incised; first joint of antennæ about as long as head, incrassated, a little curved apically, smooth, the remaining joints pilose, second longer than first; rostrum short, much incrassated, first joint a little shorter than second, which is inwardly angularly dilated near its base; pronotum much longer than head, moderately tumid, its lateral margins convexly narrowed anteriorly, centrally

longitudinally impressed on disk and transversely impressed near base; hemelytra rudimentary, reaching the base of the second abdominal segment; abdomen convexly broadened from base, above with the fifth and sixth segments longest, fourth with a central triangular impression, beneath with the first four segments centrally divided; prosternum with a narrow, central, linear sulcation; mesosternum with a very broad central sulcation; femora incrassated, anterior femora with a basal carination beneath terminating in a distinct dentation, intermediate femora with two dentations beneath; anterior and intermediate tibiæ each with a long, apical, spongy furrow beneath.

1215. **Stegius pravus**, sp. n.

♀. Black, moderately shining; apices of the tibiæ beneath and the tarsi longly ochraceously pilose; antennæ with the first and second joints robust and subequal in length; head with the lateral areas in front of eyes finely granulate, transversely impressed behind eyes, the impression a little curved; pronotum with the anterior lobe tumid, its lateral and anterior margins

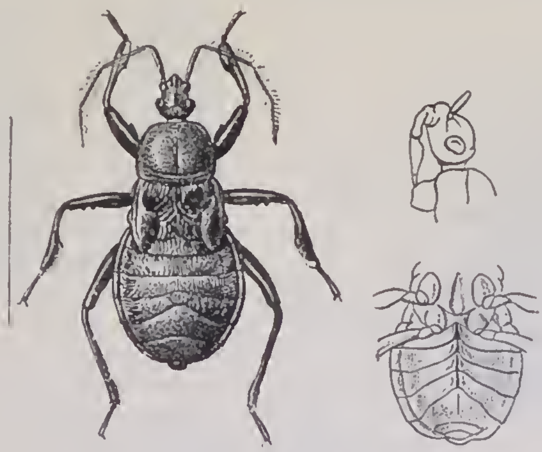

Fig. 208.—*Stegius pravus.*

carinately reflexed, with a discal central impression, and much longer than posterior lobe; hemelytra rudimentary and reaching the second abdominal segment; central disk of fourth abdominal segment above with a subtriangular process; mesosternum with a broad, central, transversely striate furrow; first four ventral segments beneath medially divided, fifth centrally impressed.

Length 23 millim.

Hab. Bengal; Jalpaigori.

Genus **ERIXIMACHUS**, nov.

Type, *E. globosus*, Dist.

Distribution. Southern India.

♀. Broadly subovate, abdomen globose; head very broad,

anteocular very much longer than postocular area, before eyes somewhat obliquely depressed on each side, vertex tumid; antennæ with the first joint subequal in length to head, but longly passing its apex, second joint longer than first; rostrum short, very thick, second joint thicker and slightly longer than first; pronotum transversely impressed near base, tumid, its lateral margins convex, and with a central discal linear longitudinal impression; abdomen above levigate not rugose, convexly tumid but prominently depressed at base, fifth and sixth segments longest, beneath globose with the first four segments medially faintly longitudinally impressed; prosternum medially longitudinally sulcate; mesosternum not sulcated, but with an obscure, medial, ovate, transversely rugulose impression; anterior and intermediate femora strongly incrassate, intermediate femora with two prominent dentate tubercles beneath; anterior and intermediate tibiæ each with a somewhat long spongy furrow beneath.

1216. **Eriximachus globosus**, sp. n.

♀. Head, pronotum, prosternum, legs, antennæ, and rostrum piceous-black, opaque; abdomen above brownish-piceous; connexivum, abdomen beneath, meso- and metasterna, and apices of the tibiæ beneath brownish-testaceous; first and second joints of antennæ almost equal in length, anterior lobe of pronotum globose, its disk centrally, longitudinally, linearly impressed, much longer than posterior lobe; abdomen tumid above, globose beneath, above levigate, not rugose; hemelytra practically absent.

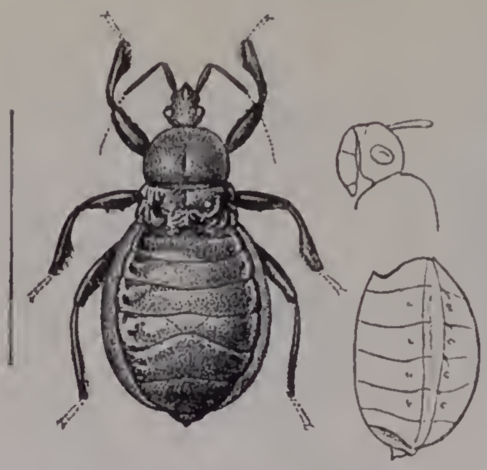

Fig. 209.—*Eriximachus globosus.*

Var. Central area of anterior and intermediate tibiæ pale castaneous.

Length, ♀, 22 to 26 millim.

Hab. Utakamand (*Indian Mus.*). Calcutta (*Coll. Dist.*).

Genus **VILIUS**.

Vilius, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 45; *En. Hem.* iv, p. 45 (1874).

Type, *V. melanopterus*, Stål.

Distribution. Oriental Region.

Head large, broad, the region of the ocelli tumidly elevated, eyes very prominent in male, less so in female; antennæ four-jointed,

pilose in male, scarcely so in female, first joint in male longer than head, second joint a little longer than first; rostrum with the second joint much longer than first; pronotum constricted before middle, posteriorly longitudinally impressed centrally and on each lateral area; scutellum transverse, apex broadly truncate, apically armed on each side with a curved spinous angulation; legs slender, anterior femora very slightly incrassate, anterior tibiæ each provided with a minute apical spongy furrow.

1217. **Vilius melanopterus**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 45; *Dist. A. M. N. H.* (7) x, p. 292 (1902).
Ectrichodia insignis, *Walk. Cat. Het.* viii, p. 48 (1873); *Leth. & Sev.* (Mendis) *Cat. Gén. Hém.* t. iii, p. 137 (1896).
Ectrichodia limbifera, *Walk. loc. cit.* p. 49.

♂. Coral-red or reddish-testaceous; antennæ (excluding apical joint), hemelytra, apices of femora and bases of tibiæ fuscous; base and lateral margin of corium testaceous; antennæ with the first and second joints longly ochraceously pilose; eyes large, strongly exserted; posterior lobe of pronotum with three longitudinal impressions (one central and one on each lateral area), the impressions transversely rugose.

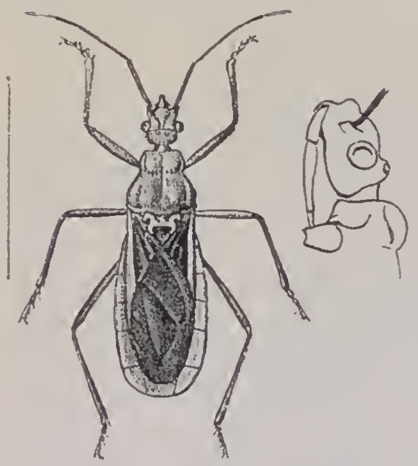

Fig. 210.—*Vilius melanopterus*, ♀.

♀. Eyes subprominent; antennæ not pilose; legs usually almost wholly fuscous.

Length 17 to 22 millim.

Hab. Assam; Sylhet (*Brit. Mus.*), Khási Hills (*Chennell*). Burma; Bhamo, Tharawaddy (*Fea*). Tenasserim; Meetan, Thagata (*Fea*).—Malay Peninsula; Perak (*Coll. Dist.*).

1218. **Vilius nigriventris**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 63.

Sanguineous; antennæ, hemelytra, and small spots to connexivum at incisures black; a spot at anterior coxæ, meso- and metasterna, and abdomen beneath indigo-black, shining; central discal and lateral marginal spots to abdomen, sixth abdominal segment and abdominal apex, basal angles, lateral margins, and broad apex to corium sanguineous; apices of tibiæ and tarsi black.

Length 15 millim.

Hab. Ceylon; Puttalam (*Green*).

Subfamily X. APIOMERINÆ.

Apiomerina, *Stål, En. Hem.* iv, p. 3 (1874).

In this subfamily, represented by only three* genera in this fauna, the main characters are those more fully given for the following subfamily (Harpactorinæ), from which the Apiomerinæ may be always separated by the constant character of the rostrum, which has the first joint very short and the second much elongated.

The Apiomerinæ are principally Neotropical insects, a few being found in the Oriental and Ethiopian Regions.

Synopsis of Genera.

A. First joint of antennæ longest, longer than head; anterior angles of pronotum moderately prominent. ECTINODERUS, [p. 326.

B. First joint of antennæ shorter than head, second joint longest.

a. Anterior angles of pronotum longly spinous; basal margin of pronotum posteriorly produced. AMULIUS, p. 327.

b. Anterior angles of pronotum not spinously produced; basal margin of pronotum subconcavely sinuate before base of scutellum .... GODEFRIDUS, [p. 328.

Genus ECTINODERUS.

Ectinoderus, *Westw. Proc. Ent. Soc.* 1843, p. 74; *id. Tr. E. S.* iv, p. 120 (1845); *Stål, En. Hem.* iv, p. 44 (1874).
Pristhevarma, *Amy. & Serv. Hém.* p. 355 (1843).

Type, *E. longimanus*, Westw., a Malayan species.

Distribution. Oriental Region.

Head robust, eyes inserted before middle, strongly transversely impressed behind eyes, and thence constricted to base; antennæ with the basal joint longest, second joint longer than third, both somewhat nodulose at base; pronotum very large, anteriorly dilated above the anterior coxæ, the anterior angles acutely produced, transversely impressed before middle, posteriorly dilated and produced, its base emarginate; abdomen dilated on each side; legs long, anterior tibiæ longer than the femora and strongly setose on each side, anterior femora moderately incrassated; rostrum with the second joint very long, considerably longer than the first and third joints together.

1219. **Ectinoderus bipunctatus**, *Amy. & Serv.* (Pristhevarma) *Hém.* p. 355, pl. vi, fig. 5 (1843).

Head, antennæ, rostrum, base of pronotum, and hemelytra piceous or black; bases of second, third, and fourth joints of

* *Godefridus* is included, though somewhat aberrant.

antennæ, pronotum (excluding base). and a discal spot to corium near apex luteous or brownish-luteous; connexivum piceous, with dull reddish or luteous spots; body beneath, coxæ, trochanters, and basal halves of femora dull sanguineous; a broad central annulation to anterior femora, apical halves of intermediate and posterior femora, and the tibiæ and tarsi black; apices of anterior femora, bases of anterior tibiæ, and a subapical annulation to intermediate and posterior femora luteous.

Fig. 211.—*Ectinoderus bipunctatus.*

Var. Corium more or less spotted with luteous.

Length 27 to 35 millim.

Hab. Burma; Pegu (*Coll. Dist.*).—Sumatra, Java, Borneo.

1220. **Ectinoderus exortivus**, *Dist. Ann. Soc. Ent. Belg.* 1903, p. 65.

Head and antennæ black, the last with the bases of the second and third joints luteous; pronotum luteous, its posterior angular margins black, its basal margin brownish-ochraceous; hemelytra shining bluish-black; corium suffused with brownish-ochraceous, a pale luteous transverse spot on its apical margin; scutellum with the central carina brownish-ochraceous; connexivum black, shining, its apex and marginal spots luteous; body beneath and legs luteous; prosternum, acetabula, coxæ, trochanters, and basal two-thirds of femora reddish-ochraceous or testaceous; disk of meso-sternum, lateral margins of meso- and metasterna, a spot between intermediate and posterior coxæ, apices of anterior tibiæ, posterior two-thirds of intermediate and posterior tibiæ and the tarsi fuscous or black; antennæ with the second joint almost as long as the third and fourth joints together; apical joint greyishly pubescent; anterior lobe of pronotum with a narrow central sulcation, posterior lobe with a deep, central, transverse impression between the lateral angles, behind which it is transversely striate, and between which and the anterior lobe there are five carinæ, two oblique on each lateral area, and one central which is subobsolete.

Long., ♂, 21; breadth between pronotal angles 7 millim.

Hab. Burma; Pegu (*Coll. Dist.*).

Genus AMULIUS.

Amulius, *Stål, Hem. Afr.* iii, p. 99 (1865); *id. En. Hem.* iv, p. 44 (1874).

Type, *A. quadripunctatus*, Stål, from the Malay Archipelago.

Distribution. Oriental and Malayan Regions.

Head broad, robust, narrowed posteriorly, strongly transversely impressed behind eyes; antennæ with the second joint longest, first joint much shorter than head; rostrum with the second joint longest; pronotum with the anterior angles longly spinous, basal margin posteriorly produced and emarginate; legs long, anterior tibiæ as long as the femora or a little longer and longly setose, anterior femora incrassated.

1221. **Amulius rubrifemur**, *Bredd. Rev. Ent.* xviii, p. 81 (1899).

Violaceous-black: anterior lobe of pronotum, sternum, and legs sanguineous, apical halves of anterior tibiæ, the whole of intermediate and posterior tibiæ and the tarsi black; a small central basal spot to pronotum, apex of scutellum, two small spots on apical margin of corium, and spots to connexivum above and beneath pale ochraceous; antennæ with the second joint about as long as third and fourth joints together, first joint as long as anteocular portion of head; anterior pronotal angles long, spinous, outwardly curved.

Fig. 212.—*Amulius rubrifemur.*

Length 21 to 22 millim.

Hab. Assam (*fide Breddin*). Andaman Islands (*Coll. Dist.*).

Genus GODEFRIDUS, nov.

Type, *G. alienus*, Dist.

Distribution. Burma.

Broadly oblong; head long, about as long as pronotum at centre, anteocular portion a little more than twice the length of postocular portion, beneath transversely rugose and centrally, longitudinally, obscurely serrate; first joint of antennæ short, much shorter than head and not reaching its apex, second joint long, about as long as third and fourth joints together; rostrum long, slender, first joint very short, second very long, third a little longer than first; pronotum broadly transverse, very much broader than long, transversely impressed near apex, its base strongly subconcavely sinuate before base of scutellum, its lateral margins distinctly sinuate; scutellum large, a little tumid, transversely indented beyond middle, its apex a little produced; clavus very broad; hemelytra much wider than abdomen, their lateral margins flattened, convexly ampliated, and moderately reflexed; legs slender, anterior femora slightly incrassated, the tibiæ only finely pilose.

1222. **Godefridus alienus**, sp. n.

Piceous; three transverse ochraceous spots on lateral areas of hemelytra (two on corium, the other and narrowest on membrane); antennæ, rostrum, legs, and abdomen beneath castaneous tarsi

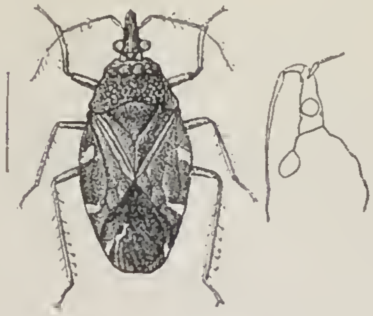

Fig. 213.—*Godefridus alienus.*

ochraceous; pronotum with the narrow anterior lobe shining, glabrous, the posterior lobe granulously subrugulose and minutely speckled with greyish; abdomen beneath somewhat piceous on lateral areas.

Length 9 to 10 millim.

Hab. Burma; Karennee (*Fea*).

Subfamily XI. HARPACTORINÆ.

Reduviina, *Stål, En. Hem.* iv, p. 3 (1874).

This is the largest subfamily of the Reduviidæ, and also its most typical representative. As already detailed in the synopsis of the subfamilies, it is to be recognized by the quadrangular areolet or cell situate near the interior angle of the corium and base of membrane. From the preceding subfamily (Apiomerinæ) it is to be distinguished by the rostrum, which is seldom very short and usually of moderate length; the area of the head between eyes is also distinctly transverse.

Division *RHAPHIDOSOMARIA.*

Body very elongate, sometimes, as in *Rhaphidosoma* (the only genus here included), apterous; head elongate, eyes small; rostrum with the first joint very short, second joint very long; antennæ inserted remotely from eyes.

This division will include the following genera with which I am at present acquainted, viz.:—*Rhaphidosoma*, found in the Ethiopian Region and India, and *Leptodema* and *Lopodytes*, both Ethiopian genera.

Genus RHAPHIDOSOMA.

Rhaphidosoma, *Amy. & Serv. Hém.* p. 392 (1843); *Stål, Hem. Afr.* iii, pp. 54, 97 (1865); *id. En. Hem.* iv, p. 14 (1874).

Type, *R. majus*, Germ., a South-African species.

Distribution. Ethiopian and Oriental Regions.

Body linear, very elongate, apterous; head elongate, cylindrical, its apex shortly or obsoletely porrectly spined; eyes small, ocelli absent; rostrum slender, first and third joints short, the second about five times longer than the first; antennæ much shorter than the body, first joint a little, sometimes much, longer than the head; pronotum not extended above the mesonotum; scutellum neither elevated nor distinct; legs long, slender, the anterior legs inserted on disk of prosternum.

1223. **Rhaphidosoma atkinsoni,** *Bergr. Ent. Month. Mag.* 1893, p. 63.

Above obscure fuscous, with a narrow, lateral, pale ochraceous fascia on each side extending from apex of pronotum to abdominal apex, interrupted at the bases of the abdominal segments; body beneath very pale ochraceous, abdomen with a fuscous central longitudinal line, which is obsolete on the two basal segments; first joint of antennæ about as long as from eyes to base of thorax; apex of head unarmed or very obsoletely spinous, distinctly moderately tumid behind eyes; pronotum distinctly convexly tumid, a little shorter than mesonotum, and slightly longer than metanotum.

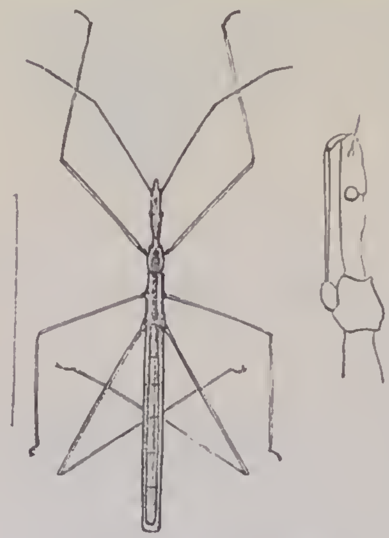

Fig. 214.—*Rhaphidosoma atkinsoni.*

Length 25 millim.

Hab. Trevandrum (*Atkinson*). Ceylon (*Green*).

1224. **Rhaphidosoma tuberculatum,** sp. n.

Pale greyish, tibiæ and last two joints of antennæ pale ochraceous; a marginal series of small tubercles on each side of thorax above, a number of small discal tubercles to pronotum, black; two prominent tubercles at posterior margins of third, fourth, fifth, and sixth abdominal segments fuscous; apex of head distinctly porrectly spinous; first joint of antennæ about as long as from eyes to base of thorax; head very strongly impressed between eyes and distinctly tumid behind eyes; pronotum convexly tumid, its anterior angles spinously produced.

Length 23 millim.

Hab. Baluchistan (*Cleghorn*).

Division *HARPACTORARIA.*

Body oblong or subelongate: head as long as pronotum or very little longer, anteocular and postocular areas almost subequal in length; scutellum not lobate, nor abdominal segments lobately dilated.

Synopsis of Genera.

A. First joint of antennæ as long as head . . LOPHOCEPHALA, p. 331.
B. First joint of antennæ much longer than head, about as long as anterior femora.
  a. Posterior lobe of pronotum neither longitudinally impressed nor elevated HARPACTOR, p. 332.
  b. Posterior lobe of pronotum anteriorly longitudinally elevated .... BIASTICUS, p. 337.
  c. Posterior lobe of pronotum longitudinally impressed .... SPHEDANOLESTES, p. 339.

Genus **LOPHOCEPHALA.**

Lophocephala, *Lap. Ess. Hém.* p. 12 (1832); *Amy. & Serv. Hém.* p. 385 (1843); *Stål, Hem. Afr.* iii, p. 54 (1865); *id. En. Hem.* iv, p. 14 (1874).

Type, *L. guerini*, Lap.

Distribution. Oriental Region and Madagascar.

Head long, slender, a little longer than pronotum; antennæ inserted about midway between eyes and apex of head, first joint about as long as head and considerably passing its apex; rostrum slender, first joint short, second joint very long, about reaching anterior coxæ; pronotum with the anterior lobe short, sculptured, not centrally sulcated, posterior lobe with a longitudinal impression on anterior disk, the posterior angles a little posteriorly produced; scutellum subtriangular, the apex a little tuberculously produced; legs moderately slender.

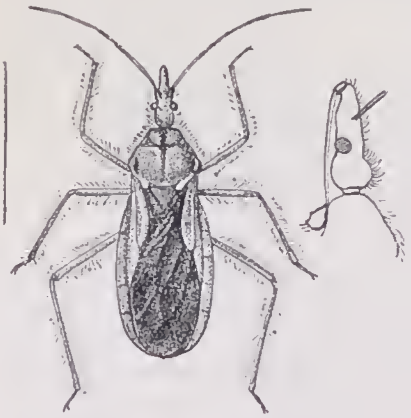

Fig. 215.—*Lophocephala guerini.*

1225. **Lophocephala guerini,** *Lap. Ess. Hém.* p. 12 (1832); *Burm. Handb.* ii, p. 244 (1835); *Amy. & Serv. Hém.* p. 386 (1843).

Sanguineous; antennæ (excluding base), scutellum, inner area of corium, membrane, body beneath (excluding lateral margins), intermediate and posterior femora (excluding apices), apices of tibiæ, and the tarsi violaceous-black; body and antennæ finely pilose, lateral margins of body and legs longly pilose; antennæ with the basal joint a little longer than the second; head thickly finely pilose and distinctly trans-

versely impressed behind eyes; posterior pronotal angles rounded, subnodulose.

Length 16 to 17 millim.

Hab. Bengal. Ceylon (*Green*).

Genus HARPACTOR.

Harpactor, *Lap. Ess. Hém.* p. 8 (1832); *Amy. & Serv.* (part.) *Hém.* p. 364 (1843); *Fieb. Eur. Hem.* pp. 42 & 152 (1861).
Reduvius, *Fabr.* (part.) *Syst. Ent.* p. 729 (1775); *Syst. Rhyng.* p. 266 (1803); *Stål, Hem. Afr.* iii, p. 75 (1865).
Subg. Zostus, Hypertolmus, Diphymus, Chirillus, Lamphrius, Harpiscus, *Stål, En. Hem.* iv, pp. 37–39 (1874).
,, Oncanchenius, *Stål, Öfv. Vet.-Ak. Förh.* 1872, No. 6, p. 46.
,, Rhinicoris, *Kolenati, Melet. Ent.* vi, p. 42 (*Bul. Soc. Imp. Nat. Mosc.* xxix, p. 460) (1856).
,, Rhynocoris, *Hahn, Wanz. Ins.* ii, p. 20 (1834).
,, Dinocleptes, Agrioclopius, *Stål, Öfv. Vet.-Ak. Förh.* 1866, pp. 284, 285.
,, Aprepolestes, *Stål, Hem. Fabr.* i, p. 111, note (1868).
,, Coranidens, *Reut. Act. Soc. Sc. Fenn.* xii, p. 296 (1881).

Type, *H. iracundus*, Poda, a Palæarctic species.

Distribution. Palæarctic, Ethiopian, and Oriental Regions.

Body oblong or subelongate; head oblong or moderately elongate, anteriorly unarmed; rostrum with the basal joint variable in length, but always considerably shorter than the two apical joints together; pronotum constricted before the middle; posterior lobe without spinous tubercles, apical angles rounded: scutellum triangular; hemelytra of variable length, reaching or passing abdominal apex; legs of variable length, femora unarmed, anterior femora sometimes incrassated.

A. *Posterior lobe of pronotum rugosely granulate.*

1226. **Harpactor marginatus**, *Fabr.* (Reduvius) *Ent. Syst.* iv, p. 196 (1794): *Stål* (Chirillus), *En. Hem.* iv, p. 39 (1874); *Reut. Act. Soc. Sc. Fenn.* xii, p. 293 (1881); *Dist. A. M. N. H.* (7) xi, p. 205 (1903).
Sycanus? militaris, *Kirby, J. Linn. Soc., Zool.* xxiv, p. 119 (1891).

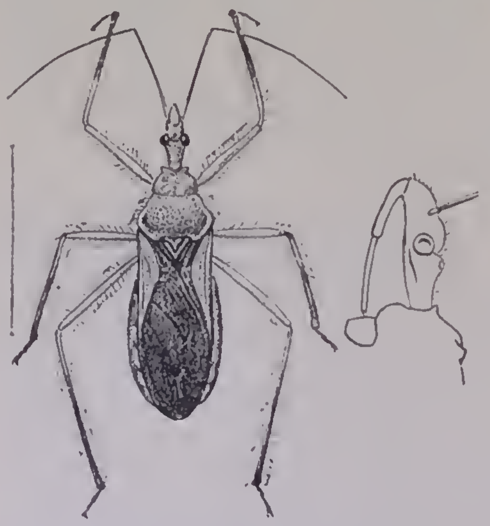

Fig. 216.—*Harpactor marginatus.*

Sanguineous; antennæ, eyes, scutellum, inner area of corium, membrane, abdomen beneath, and apical two-thirds of tibiæ violaceous-black; base of antennæ and lateral margins of abdomen sanguineous; disk of sternum, coxæ, trochanters, and anterior lobe of pronotum reddish-ochraceous; head as long as pronotum; basal joint

of rostrum reaching eyes; first joint of antennæ almost equal in length to anterior femora, ante- and postocular areas of head about equal in length; pronotum with the anterior lobe sculptured, the posterior lobe rugulose; corium rugulose, the transverse cell near base of membrane margined with sanguineous; membrane passing abdominal apex.

Var. Abdomen beneath totally black.

Length $19\frac{1}{2}$ to 20 millim.

Hab. "North India" (*Coll. Dist.*). Vizagapatam. Ceylon (*Green*).

1227. **Harpactor squalus**, sp. n.

Black; pronotum, sternum, corium, and legs piceous; posterior lobe of pronotum and corium coarsely rugosely granulate; first joint of rostrum reaching eyes and longer than anteocular portion of head; ante- and postocular areas of head about equally long, first joint of antennæ almost as long as anterior femora; anterior pronotal lobe sculptured, with two small but distinct discal tubercles, and posteriorly centrally excavated; legs somewhat longly pilose; membrane passing abdominal apex.

Length 21 millim.

Hab. Sikhim; Pankabari.

B. *Posterior lobe of pronotum not, or very obscurely, rugosely granulate.*

a. *Head as long, or about as long, as pronotum.*

a. First joint of rostrum not, or scarcely, longer than anteocular area of head.

1228. **Harpactor fuscipes**, *Fabr.* (Reduvius) *Mant. Ins.* ii, p. 312 (1787); *id. Syst. Rhyng.* p. 278 (1803); *Stål* (Reduvius), *Hem. Fabr.* i. p. 110 (1868); *Dist. A. M. N. H.* (7) xi, p. 205 (1903).
Reduvius sanguinolentus, *Wolff, Ic. Cim.* iv, p. 166, f. 160 (1804).
Reduvius corallinus, *Lepell. & Serv. Enc. Méth.* x, p. 279 (1825).
Harpactor bicoloratus, *Kirby, J. Linn. Soc., Zool.* xxiv. p. 120 (1891).

Coral-red; antennæ, rostrum, central lobe, an oblong spot between antennæ, upper surface of postocular area and a lateral fascia behind eyes (both fused at base), anterior area of posterior lobe of pronotum (not reaching lateral margins), disk of scutellum, two spots to prosternum, bases of pro-, meso-, and metasterna, segmental fasciæ to abdomen beneath, and the legs black; first joint and base of second joint to rostrum, and spots near coxæ, coral-red; clavus, interior area of corium, and membrane fuscous-violaceous; basal streak on under surface of anterior femora luteous, sometimes obsolete; head as long as pronotum; basal joint of rostrum not passing eyes; first joint of antennæ a little shorter

than anterior femora; ante- and postocular areas of head about equal in length; pronotum with the anterior lobe distinctly sculptured, posteriorly centrally finely impressed, posterior lobe not impressed; membrane passing abdominal apex, its posterior margin pale fuliginous.

Length 14 to 16 millim.

Hab. Bombay (*Leith*); Bor Ghát (*Dixon*). Ceylon (*Green*).

1229. **Harpactor costalis**, *Stål* (Reduvius), *Öfv. Vet.-Ak. Förh.* 1866, p. 285; *Reut.* (Reduvius) *Act. Soc. Sc. Fenn.* xii, p. 293 (1881).

Black; a spot between and a lateral spot behind eyes, anterior lobe of pronotum (excluding its basal margin), lateral margins and basal area of posterior pronotal lobe, apex of scutellum, broad lateral areas of corium, connexivum, coxæ, trochanters, and abdomen beneath coral-red; head beneath, fasciate spots to femora beneath, and segmental transverse fasciæ, which are widened laterally but do not reach margins, luteous; spots to connexivum and segmental fasciæ reaching margins black; head as long or very slightly longer than pronotum; basal joint of rostrum not passing eyes; first joint of antennæ a little shorter than anterior femora; ante- and postocular areas of head about equal in length; pronotum with the anterior lobe obscurely sculptured, centrally impressed, posterior lobe not impressed; membrane passing abdominal apex, its apex fuliginous.

Length 12 to 14 millim.

Hab. Bengal (*Stockholm Mus.*). Assam; Khási Hills (*Chennell*). Burma: Bhamo, Karennee (*Fea*).—Malay Peninsula. Celebes (*Coll. Dist.*).

b. First joint of rostrum distinctly longer than anteocular area of head.

a[1]. *Pronotal lobes concolorous.*

1230. **Harpactor marginellus**, *Fabr.* (Reduvius) *Syst. Rhyng.* p. 271 (1803); *Stål* (Reduvius), *Hem. Fabr.* i. p. 111 (1868); *id.* (Lamphrius) *En. Hem.* iv, p. 39 (1874).
Var. vicinus, *Stål* (Reduvius), *Öfv. Vet.-Ak. Förh.* 1859, p. 202.

Black, very thickly griseously sericeous; head and legs shining black, moderately pilose; lateral margins of abdomen ochraceous or reddish-ochraceous.

Var. *a.* Abdominal lateral margins spotted with black.

Var. *b.* Posterior lateral margins of pronotum ochraceous or reddish-ochraceous.

Var. *c.* Resembling var. *b*, but with the femora testaceous.

Head as long as pronotum; basal joint of rostrum just passing eyes; first joint of antennæ about equal in length to anterior femora; ante- and postocular areas of head about equal in length; pronotum with the anterior lobe obscurely sculptured, posteriorly

centrally impressed, posterior lobe sericeous, but not regulose; membrane brownish-piceous, passing abdominal apex.

Length 12 to 15 millim.

Hab. Assam; Margherita, Khási Hills (*Chennell*). Sikhim. Burma; Palon, Bhamo, Karennee (*Fea*).—Aden (*Yerbury*).

1231. **Harpactor reuteri,** *Dist.* (Harpiscus) *Tr. E. S.* 1879, p. 125; *id. Sec. Yark. Miss., Rhynch.* p. 11, f. 9 (1879).

Black, shining, trochanters and bases of femora sanguineous; head with the ante- and postocular areas about equal in length, the last robust, not very prominently narrowed, rostrum with the first joint a little longer than the anteocular portion of head; first joint of antennæ a little shorter than anterior femora; anterior lobe of pronotum broadly centrally impressed.

Length 16 to 18 millim.

Hab. Sind valley, Kashmir (*Stoliczka*), Sylhet (*Brit. Mus.*).—Baltistan (*Brit. Mus.*).

1232. **Harpactor tristicolor,** *Reut.* (Diphymus?) *Act. Soc. Sc. Fenn.* xii, p. 291 (1881).

Body, with antennæ, rostrum, and legs black, shining, sparingly griseously pilose; legs long, remotely pilose; a transverse spot between eyes and bases of antennæ (both sometimes obsolete) testaceous; connexivum pale stramineous, with large black spots, these spots much smaller in the male; head about as long as pronotum, postocular a little longer than anteocular area; rostrum with the basal joint reaching eyes, a little longer than anteocular portion of head; first joint of antennæ about as long as anterior femora; pronotum with the anterior lobe distinctly bituberculate; apical areas of femora moderately nodulose.

Length 13 to 14 millim.

Hab. Sikhim; Mungphu (*Atkinson*). Assam (*Brit. Mus.*). Upper Burma (*Bingham*); Rangoon, Pegu, Arakan (*Atkinson Coll.*).—Cambodia (*Brit. Mus.*).

b^1. Pronotal lobes not concolorous; posterior lobe luteous.

a^2. Abdomen beneath unicolorous.

1233. **Harpactor nigricollis,** *Dall.* (Arilus) *Tr. E. S.* 1850, p. 8, pl. ii, f. 5; *Stål* (Reduvius), *Öfv. Vet.-Ak. Förh.* 1866, p. 286; *Dist. A. M. N. H.* (5) iii, p. 133 (1879).

Head, rostrum, antennæ, anterior lobe of pronotum, scutellum, sternum, and legs black; head beneath, posterior lobe of pronotum, corium, and posterior area of prosternum luteous; connexivum and abdomen beneath sanguineous; membrane pale brownish, its apical area paler; head about as long as pronotum, anteocular as long as postocular portion; first joint of antennæ shorter than

anterior femora; first joint of rostrum reaching posterior margin of eyes; anterior lobe of pronotum not sculptured and with a central cruciform impression: anterior femora distinctly curved; membrane passing abdominal apex.

Length 13 to 14 millim.

Hab. Bhutan. Sikhim; Darjeeling. Burma; Karennee (*Fea*). —Sumatra (*Forbes*).

1234. **Harpactor nilgiriensis,** *Dist. A. M. N. H.* (7) xi, p. 75 (1903).

Head, lateral areas of meso- and metasterna, intermediate and posterior coxæ, legs, and abdomen above black; posterior lobe of pronotum, corium, spots to connexivum, fascia to head beneath, and the abdomen beneath luteous; broad biannulations to femora, rostrum, anterior coxæ, and anterior lobe of pronotum reddish-ochraceous; antennæ piceous, first joint (excluding base and apex) brownish-ochraceous, shorter than anterior femora; rostrum with the first joint reaching eyes, longer than anteocular portion of head, which is shorter than postocular portion; head about as long as pronotum; membrane pale bronzy, passing abdominal apex.

Length 8½ millim.

Hab. Nilgiri Hills (*Hampson*).

1235. **Harpactor pygmæus,** *Dist. A. M. N. H.* (7) xi, p. 75 (1903).

Head, anterior lobe of pronotum, anterior area of prosternum, the meso- and metasterna, coxæ, and legs black; posterior pronotal lobe, broad biannulations to femora, connexivum, and abdomen pale sanguineous; head beneath and corium luteous; scutellum piceous, centrally reddish-brown; connexivum with a black spot on each of the last three segments; membrane pale bronzy, just passing the abdominal apex; first joint of rostrum reaching eyes, a little longer than anteocular portion of head, which is a little shorter than postocular portion; head about as long as pronotum; antennæ piceous, first joint a little shorter than anterior femora.

Length 7 millim.

Hab. Nilgiri Hills (*Hampson*).

b². *Abdomen beneath fasciated with black.*

1236. **Harpactor flavus,** *Dist. A. M. N. H.* (7) xi, p. 206 (1903).
Harpactor chersonesus, *Dist. loc. cit.* p. 207.

Posterior lobe of pronotum and body beneath pale luteous; head above, a lateral fascia on each side of head behind eyes, antennæ, rostrum, anterior lobe of pronotum, anterior area of prosternum, disks of meso- and metasterna, coxæ, and legs black; abdomen beneath with black lateral, segmental, transverse fasciæ, sometimes with only two or three black marginal spots; scutellum black with the apex luteous; corium ochraceous or brownish-ochraceous; membrane bronzy-brown; connexivum luteous,

spotted with black; rostrum with the first joint reaching eyes, longer than the anteocular portion of head; postocular portion of head slightly longer than anteocular portion; head about as long as pronotum; first joint of antennæ shorter than anterior femora; posterior pronotal lobe not quite twice as long as anterior lobe.

Var. *a*. Corium testaceous with the basal area black.

Var. *b*. Resembling typical form, but with the connexivum unicolorous, pale sanguineous.

Var. *c*. Resembling var. *a*, but with one or two discal piceous spots to posterior lobe of pronotum; femora biannulated with ochraceous.

Length 10 to 11 millim.

Hab. Assam; Margherita (*Doherty*). Burma; Karennee, Schwegoo Myo (*Fea*). Tenasserim.—Penang (*Ridley*, *Brit. Mus.*). China; Hongkong (*Brit. Mus.*).

b. *Head longer than pronotum.*

1237. **Harpactor longifrons**, *Stål* (Charontus), *En. Hem.* iv, p. 41 (1874).

Ferruginous, griseously sericeous, beneath more obscurely coloured; lateral areas of head behind eyes black; membrane fuscous; abdominal margin palely spotted; head a little longer than pronotum, anteocular longer than postocular portion; basal joint of rostrum equal in length to anteocular portion of head; posterior pronotal lobe anteriorly longitudinally impressed, posterior angles lobate; first joint of antennæ distinctly shorter than head.

Length, ♀, 12 millim.

Hab. Pondicherry (*Stockholm Mus.*).

I have not seen this species.

Genus **BIASTICUS**.

Biasticus, *Stål*, *Öfv. Vet.-Ak. Förh.* 1866, pp. 284 & 290; *id. En. Hem.* iv, p. 13 (1874).

Type, *B. impiger*, Stål, a Malayan species.

Distribution. Oriental Region.

Body elongate; head subelongate, almost as long as the pronotum, postocular a little longer than anteocular area; rostrum with the first joint shorter than the second, a little longer than anteocular area of head; first joint of antennæ a little longer than pronotum; anterior lobe of pronotum longitudinally impressed, posterior lobe with a distinct, central, anterior, longitudinal elevation; scutellum not apically produced; hemelytra passing the abdominal apex; legs moderately long and slender; femora apically moderately nodulose, anterior femora very slightly incrassated.

1238. **Biasticus abdominalis**, *Reut. Rev. d'Ent.* vi, p. 153 (1887).

Black; posterior lobe of pronotum, hemelytra, central fascia to head beneath, and posterior margins of pronotum dull ochraceous: segmental incisures of connexivum, above and beneath, bright pale castaneous; finely pilose; first joint of rostrum reaching the posterior margin of eyes; basal joint of antennæ subequal in length to anterior femora; anterior longitudinal elevation to posterior pronotal lobe well pronounced, the posterior angles subnodulose; lateral and apical margins of membrane pale hyaline; legs somewhat longly pilose.

Fig. 217.—*Biasticus abdominalis.*

Length 13 millim.

Hab. "North India" (*Reuter*). Burma; Karennee.

1239. **Biasticus fuliginosus**, *Reut. Rev. d'Ent.* vi, p. 152 (1887).

♂. Black, shining; head and legs fuscously pilose; collar and abdomen whitish-flavescent, basal halves of the three basal segments, and the fourth and fifth segments totally, black; first joint of antennæ obscurely testaceous.

♀. Fuliginous; head and legs griseously pilose; head with the apex and under surface, base of rostrum, first joint of antennæ, trochanters, and abdomen dull testaceous-flavescent, the last with two medial fuliginous fasciæ; membrane fuscous-vinaceous. Head a little shorter than pronotum, ante- and postocular areas of head equal in length; first joint of rostrum a little shorter than second joint; first joint of antennæ subequal in length to head and anterior lobe of pronotum; anterior lobe of pronotum very strongly impressed at base and obtusely bituberculate, posterior lobe twice as long as anterior and anteriorly, tuberculously, oblongly, longitudinally elevated, abbreviated before middle, lateral angles rounded, lateral margins posteriorly reflexed; abdomen moderately ampliated and rounded on each side; femora near apices nodosely incrassated; anterior tibiæ equal in length to femora and trochanters together.

Length 9 millim.

Hab. "North India" (*Coll. Signoret*).

I have not seen this species.

Genus SPHEDANOLESTES.

Sphedanolestes, *Stål, Öfv. Vet.-Ak. Förh.* 1866, pp. 284 & 288; *id. Hem. Fabr.* i, p. 111 (1868); *id. En. Hem.* iv, p. 13 (1874).
Harpactor (part.), *Puton, Cat.* p. 39 (1886).
Subg. Sphactes, Lissonyctus, Aulacosphodrus, *Stål, Öfv. Vet.-Ak. Förh.* 1870, pp. 687, 688, 690 note.
,, Graptosphodrus, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 284.
,, Hæmactus, *Stål, En. Hem.* iv, p. 34 (1874).

Type, *S. impressicollis*, Stål, a Chinese species.

Distribution. Palæarctic, Ethiopian, and Oriental Regions.

Body oblong; head about equal to or very slightly longer than the pronotum, ante- and postocular areas about equally long, or the last a little the longest; area of the ocelli a little elevated; rostrum with the basal joint longer than the anteocular area of the head; antennæ with the first joint subequal to the head or a little longer; pronotum with the anterior and posterior lobes conjointly longitudinally impressed, posterior lobe about twice as long as anterior; hemelytra not or very slightly passing abdominal apex; abdomen a little broader than hemelytra; legs of moderate size; femora near apices obsoletely subnodulose; anterior femora not or slightly incrassated.

A. *Pronotum black, unicolorous, or palely pubescent.*

1240. **Sphedanolestes pubinotum,** *Reut. Act. Soc. Sc. Fenn.* xii, p. 289 (1881).

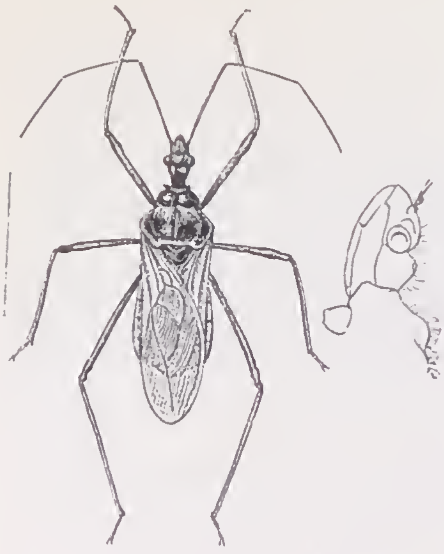

Fig. 218.—*Sphedanolestes pubinotum.*

Black, shining; head, pronotum, scutellum, corium, and sternum thickly greyishly pubescent; abdomen sanguineous, beneath with three or four transverse black fasciæ, but these are sometimes absent; head with the postocular a little longer than the anteocular area; first joint of rostrum a little longer than anteocular portion of head and much shorter than second joint; first joint of antennæ as long as anterior femora; central impression to pronotum continued to about middle of posterior lobe; membrane longly passing abdominal apex.

Length 15 to $16\frac{1}{2}$ millim.

Hab. Sikhim; Darjeeling (*Stockholm Mus.*). Assam; Khási Hills (*Chennell*). Burma; Karennee (*Fea*).

1241. **Sphedanolestes pulchriventris,** *Stål* (Reduvius), *Ann. Soc. Ent. Fr.* 1863, p. 37.

Violaceous black, shining, slightly and sparingly pilose; hemelytra strongly tinted with violaceous; connexivum and abdomen sanguineous; spots to connexivum above and beneath, and lateral fasciate spots to abdomen beneath, black; margins of the segmental incisures luteous; head a little shorter than pronotum, anteocular and postocular areas about equal in length; basal joint of rostrum reaching eyes, a little longer than anteocular area of head; first joint of antennæ about as long as anterior femora, which are distinctly nodulose; pronotum with a broad central impression which reaches middle of posterior lobe; membrane longly passing abdominal apex.

Length 14 to 15 millim.

Hab. "North India" (*Brit. Mus.*).

1242. **Sphedanolestes funeralis.** *Dist. A. M. N. H.* (7) xi, p. 210 (1903).

Black; trochanters sanguineous; elongate, hirsute; second joint of rostrum longer than the first; head a little shorter than pronotum, the anteocular about as long as the postocular portion; basal joint of rostrum reaching eyes, a little longer than anteocular area of head; posterior lobe of pronotum finely but distinctly sulcate, the posterior angles rounded; membrane passing the abdominal apex. The colour above is somewhat opaque; on the under surface and legs it is shining with an indigo tint.

Length 16½ millim.

Hab. Kashmir (*Brit. Mus.*).

1243. **Sphedanolestes indicus,** *Reut. Act. Soc. Sc. Fenn.* xii, p. 289 (1881).

Black; corium and bases of femora piceous, very sparingly and obscurely palely pilose; connexivum and a large spot before apex of abdomen beneath sanguineous; connexivum spotted with black; antennæ with the first joint about as long as anterior femora; anterior pronotal lobe centrally sulcated, posterior lobe discally broadly impressed; membrane bronzy-brown, passing abdominal apex; lateral pronotal angles obtusely subprominent and rounded.

Length 12½ millim.

Hab. "India orientalis" (*Stockholm Mus.*).

By the kindness of Dr. Sjöstedt I have been able to examine and compare this species.

B. *Pronotum black, anterior lobe and posterior margins sanguineous.*

1244. **Sphedanolestes mendicus**, *Stål* (Reduvius), *Öfv. Vet.-Ak. Förh.* 1866, p. 286; *id.* (Lamphrius) *En. Hem.* iv, p. 39 (1874); *Leth. & Sev.* (Harpactor) *Cat. Gén. Hém.* t. iii, p. 160 (1896).

Black; head, anterior lobe of pronotum, lateral and posterior margins of posterior lobe of pronotum, lateral margins and apex of scutellum, sometimes whole of scutellum, connexivum above and beneath, coxæ and trochanters sanguineous; head with a large spot behind eyes black. Head about as long as pronotum; first joint of rostrum slightly longer than anteocular portion of head, which is subequal in length to postocular area; pronotum distinctly impressed on posterior lobe; membrane longly passing abdominal apex.

Var. *a.* Head wholly sanguineous; legs sanguineous, apices of tibiæ and the tarsi piceous.

Var. *b.* Head, excluding apex and under surface, black; legs black.

Var. *c.* Femora sanguineous, tibiæ black.

Length 11 to 14 millim.

Hab. Assam; Khási Hills (*Chennell*). Burma; Palon, Karennee, Bhamo (*Fea*). Tenasserim; Meetan (*Fea*). Mergui (*Coll. Dist.*).—Malay Peninsula; Pahang (*Cradock*).

C. *Pronotum bicoloured, anterior lobe and posterior margins black.*

1245. **Sphedanolestes stigmatellus**, *Dist. A. M. N. H.* (7) xi, p. 209 (1903).

Black; anterior area of posterior pronotal lobe, lateral area of corium, posterior margin of prosternum, anterior coxæ, and disk of abdomen beneath sanguineous; head beneath, a spot near both the intermediate and posterior coxæ, abdominal margin, and a submarginal series of large subquadrate spots very pale luteous; the abdominal margin black at incisures on posterior half and the submarginal spots margined with black; greyishly pilose; head about as long as pronotum; second joint of rostrum considerably longer than the first; sulcation to anterior lobe of pronotum profound, posterior lobe broadly and much more obscurely sulcate.

Length 8 millim.

Hab. Nilgiri Hills; Utakamand (*Atkinson, Brit. Mus.*).

1246. **Sphedanolestes signatus**, *Dist. A. M. N. H.* (7) xi, p. 209 (1903).

Black; disk of posterior lobe of pronotum, lateral areas of prosternum, connexivum, and abdomen beneath pale creamy

luteous; corium luteous, with the veins black; membrane pale bronzy; postocular portion of the head much longer than the anteocular portion; second joint of rostrum much longer than the first; head about as long as the pronotum; posterior pronotal lobe broadly sulcated, anterior lobe finely deeply sulcate; posterior pronotal angles subprominent, rounded.

Length to apex of membrane $8\frac{1}{2}$ millim.

Hab. Nilgiri Hills; Utakamand (*Atkinson, Brit. Mus.*).

1247. **Sphedanolestes dives**, sp. n.

Pale luteous; head, antennæ, rostrum, anterior lobe and a large basal fascia divided at centre of posterior lobe of pronotum, scutellum (excluding apex), disk of abdomen above, disk of sternum, coxæ, trochanters and legs, and transverse linear spots to connexivum black; margins of abdomen above and beneath ochraceous; coxal spots and head beneath pale luteous; head a little shorter than pronotum, postocular a little longer than anteocular area of head; first joint of rostrum reaching eyes, a little longer than anteocular area of head; first joint of antennæ as long as anterior femora; pronotum broadly centrally impressed, the impression continued to middle of posterior lobe; apical areas of femora distinctly nodulose.

Length 7 to $7\frac{1}{2}$ millim.

Hab. Burma; Mandalay (*Bingham, Brit. Mus.*), Toungoo (*Bingham, Brit. Mus.*).

D. *Pronotum bicoloured; markings variable.*

1248. **Sphedanolestes variabilis**, sp. n.

Luteous; head above and lateral areas behind eyes, anterior lobe of pronotum, scutellum (excluding apex), spots to connexivum above and beneath, anterior area of prosternum, the meso- and metasterna and coxæ black; antennæ, rostrum, and legs pale castaneous; apex of rostrum, basal, central and broad apical annulations to femora, bases and apices of tibiæ, and the tarsi black; first joint of rostrum reaching eyes, slightly longer than anteocular area of head, which is about equal in length to postocular area; head about as long as pronotum; both lobes of pronotum sulcately impressed; first joint of antennæ a little shorter than anterior femora, which have their bases and apices infuscated.

Var. *a.* Posterior lobe of pronotum more or less infuscated; legs wholly black.

Var. *b.* Resembling var. *a*, but with the pronotum black, a small central luteous spot on posterior lobe.

Length 7 to 8 millim.

Hab. Nilgiri Hills; Kotagiri (*Atkinson, Brit. Mus.*), Utakamand (*Atkinson, Brit. Mus.*).

E. *Pronotum sanguineous.*

1249. **Sphedanolestes annulipes,** *Dist. A. M. N. H.* (7) xi, p. 75 (1903).

Black; pronotum, prosternum, and anterior and intermediate coxæ sanguineous; connexivum, biannulations to femora, head beneath, first joint of rostrum (excluding base), and abdomen beneath pale creamy-luteous; marginal areas of abdomen with tessellate black markings enclosing two series of large luteous spots; connexivum above with the last two segmental incisures black; second joint of rostrum longer than the first, which is a little longer than anteocular area of head; postocular portion of the head longer than the anteocular portion; head about as long as the pronotum, which has the central sulcation profound and reaching middle of posterior lobe, the posterior angles subprominent and rounded.

The pronotum varies in colour from sanguineous to reddish ochraceous; the scutellum is either of that colour, or has its margins and apex black, or is entirely black; the pronotal posterior angles are sometimes black.

Length 7 to 8 millim.

Hab. Burma; Karennee, Bhamo (*Fea*), Northern Shan States (*Bingham, Brit. Mus.*).

1250. **Sphedanolestes nigro-ruber.** *Dohrn* (Reduvius), *Stett. ent. Zeit.* xxi, p. 406 (1860); *Stål* (Hæmactus), *En. Hem.* iv, p. 34 (1874).

"Sanguineous, shining; head, membrane, legs (coxæ excepted), last segment of abdomen, antennæ, and rostrum black, shining." (*Dohrn.*)

To this description Stål adds the following:—"Rostrum thick, second joint much longer than the first; base of head and spot on each side near eyes coral-red."

Length 10 millim.

Hab. Ceylon (*Coll. Dohrn*).

I have not seen this species.

1251. **Sphedanolestes trichrous,** *Stål* (Hæmactus), *En. Hem.* iv, p. 34 (1874).

Coral-red, sparingly setose; head, antennæ, rostrum, and legs black; a small lateral spot to head near eyes, base of head and base of femora coral-red; membrane fuscous-violaceous, posterior areas palely fuscescent hyaline. Allied to *S. nigro-ruber*, Dohrn, differing by the longer and two-coloured membrane, the posterior tibiæ moderately curved, the trochanters and bases of femora coral-red.

Length 11 millim.

Hab. "India orientalis" (*Stockholm Mus.*).

I have not seen this species.

Not examined; sectional position uncertain.

1252. **Sphedanolestes sordidipennis**, *Dohrn* (Reduvius), *Stett. ent. Zeit.* xxi, p. 406 (1860); *Stål, En. Hem.* iv, p. 35 (1874).

"'*Sordidus*'; head black, shining; underneath palely '*sordidus*'; pronotum anteriorly red, posteriorly griseous-castaneous; scutellum black: hemelytra '*sordida*,' apex infuscated; abdomen beneath palely obscurely flavous; legs black, pilose, shining, femora annulated with fuscous; antennæ and rostrum fulvous, shining." (*Dohrn.*)

Stål, who examined the type, writes:—"Rostrum and hemelytra pale, and femora biannulated with flavous-testaceous; pronotum biannulated with flavous-testaceous, posterior lobe only slightly impressed; scutellum black."

Length 8 millim.

Hab. Ceylon.

I have not seen this species.

Division *VESBIARIA*.

This small division is distinguished by the structure of the head, the postocular being nearly three times longer than the anteocular area; the eyes are inserted near the apex of the head.

Only one genus can be included according to our present knowledge of this fauna.

Genus **VESBIUS**.

Vesbius, *Stål, Hem. Afr.* iii, p. 50 (1865); *id. Öfv. Vet.-Ak. Förh.* 1870, p. 684; *id. En. Hem.* iv, p. 13 (1874).

Type, *V. purpureus*, Thunb.

Distribution. Oriental Region.

Body ovately subelongate; head with the postocular very much longer than the anteocular area, the eyes inserted near apex; first and second joints of rostrum subequal in length; femora with the apical areas nodulose; anterior tibiæ much longer than the anterior femora and trochanters together; scutellum subtriangular; membrane considerably passing the abdominal apex.

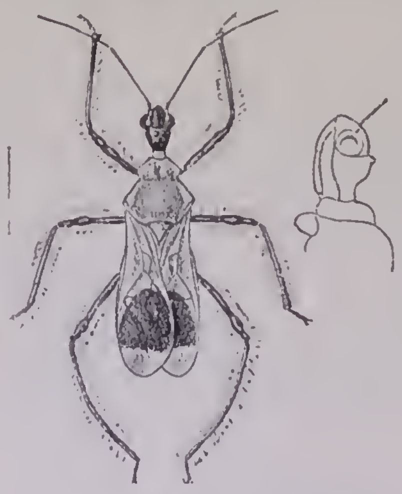

Fig. 219.—*Vesbius purpureus.*

1253. **Vesbius purpureus**, *Thunb.* (Cimex) *Nov. Ins. Sp.* iii, p. 57 (1784); *id.* (Reduvius) *Hem. Rostr. Cap.* iii, p. 4 (1822).

Harpactor milthinus, *Herr.-Schäff. Wanz. Ins.* viii, p. 82, f. 850 (1848).

Sanguineous; head (excluding base), antennæ, rostrum, tro-

chanters, legs, and membrane (excluding base) black; apical third of membrane hyaline; first joint of antennæ subequal in length to anterior femora; lateral angles of the posterior pronotal lobe subnodulose; legs largely pilose, the femora distintly nodulose.

Length 7 to 8 millim.

Hab. Assam; Khási Hills (*Coll. Dist.*). Ceylon (*Green*). Burma; Bhamo (*Fea*).—Java. Philippines.

1254. **Vesbius sanguinosus**, *Stål, En. Hem.* iv, p. 36 (1874).

Allied to the preceding species (*V. purpureus*), but larger; the trochanters and bases of femora sanguineous.

Var. *a.* Membrane broadly sanguineous at base, its apical third hyaline; basal two-thirds of femora sanguineous.

Var. *b.* Basal area of membrane not sanguineous, its apical half hyaline; basal third of femora sanguineous.

Length 8 to 11 millim.

Hab. Assam; N. Khási Hills (*Chennell*). Burma; Bhamo, Karennee (*Fea*). Tenasserim; Thagata (*Fea*).—Malay Peninsula: Perak (*Coll. Dist.*). Java; Borneo.

Division *VELINARIA.*

In this division the head is about as long as the pronotum or very little shorter; the apical areas of the femora nodulose or subnodulose; the anterior tibiæ as long as the anterior femora and trochanters together, or longer; the lateral margins of the fourth and fifth abdominal segments moderately dilated.

Synopsis of Genera.

A. Scutellum with the apex spatulately dilated; first joint of antennæ about as long as anterior femora	COSMOLESTES, p. 345.
B. Scutellum not spatulately dilated at apex; first joint of antennæ very much longer than anterior femora	VELINUS, p. 346.

Genus **COSMOLESTES.**

Cosmolestes, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 285 note; *id. Hem. Fabr.* i, p. 111 (1868); *id. En. Hem.* iv, p. 14 (1874).

Type, *C. pictus*, Klug, an African and South-east Palæarctic species.

Distribution. Ethiopian, S.E. Palæarctic, and Oriental Regions.

Body ovately subelongate; head shorter than pronotum, postocular much longer than anteocular portion, which is also a little shorter than first joint of rostrum; first joint of antennæ about as long as anterior femora; pronotum with the anterior angles acutely prominent, anterior lobe medially impressed, lateral angles subnodulose; scutellum with the apex spatulately dilated; femora with their apical areas subnodulose; anterior tibiæ slightly longer

than the anterior femora and trochanters together; margins of fourth and fifth abdominal segments moderately dilated.

1255. **Cosmolestes annulipes,** *Dist. A. M. N. H.* (5) iii, p. 132 (1879).

Fig. 220.—*Cosmolestes annulipes.*

Luteous; head, anterior lobe of pronotum, a spot near each lateral angle of posterior lobe, scutellum, margins of meso- and metasterna, abdominal incisures, dilated laterally and enclosing luteous spots, annulations to femora and basal annulations to tibiæ black; head with an oblique fascia in front of eyes, a central apical fascia, a central line to postocular area, and the under surface luteous; scutellum with a central discal line and broad spatulate apex luteous; apical margins of corium elevated and luteous; apices of first and second joints of rostrum piceous.

Length 10 millim.

Hab. Assam; Eastern Gáro Hills (*Chennell*). Burma; Karennee (*Fea*).

1256. **Cosmolestes picticeps,** *Stål* (Reduvius), *Öfv. Vet.-Ak. Förh.* 1859, p. 204; *id. En. Hem.* iv, p. 32 (1874).

Ochraceous; head above, scutellum, apices of femora, bases of tibiæ, bases of antennæ, apex of rostrum, and sublateral transverse spots to abdomen beneath black; an oblique line in front of each eye and a central discal line to postocular area of head, spatular apex to scutellum, and the elevated apical margins of corium luteous; basal joint of rostrum about reaching posterior margin of eyes; apices of femora distinctly nodulose; membrane considerably passing abdominal apex.

Length 11 to 12 millim.

Hab. Sylhet (*Stockholm Mus.*).—Malay Peninsula; Java; Sumatra; Borneo.

Genus **VELINUS.**

Velinus, *Stål, Hem. Afr.* iii, p. 52 (1865); *id. Öfv. Vet.-Ak. Förh.* 1870, p. 689; *id. En. Hem.* iv, p. 12 (1874).

Type, *V. lobatus*, Stål, from Siam and Cambodia.

Distribution. Oriental Region, China, and Madagascar.

Abdomen moderately dilated, fourth segment, or fourth and fifth on each side, rotundately ampliated; legs long, femora nodulose at apices; head about as long as pronotum or very little shorter, postocular much longer than anteocular area, which is also a little shorter than first joint of rostrum; first joint of

antennæ very much longer than anterior femora: anterior tibiæ about as long as anterior femora and trochanters together; scutellum subtriangular, apex not spatulately ampliated.

1257. **Velinus malayus**, *Stål* (Reduvius), *Ann. Soc. Ent. Fr.* 1863, p. 38.

Luteous; head above, scutellum, corium, lateral areas of abdomen beneath, spots to connexivum above and beneath, apices of femora and bases of tibiæ black; a medial line to head behind eyes, base and a transverse fascia to corium near apex, numerous small spots to the black area of abdomen, pale luteous; membrane fuscous, its apex fuliginous; antennæ fuscous, palely annulated; first joint of antennæ twice as long as head; basal joint of rostrum about reaching posterior margin of eyes; fourth and fifth abdominal segments laterally ampliately produced; apical areas of femora nodulose and with bases of tibiæ distinctly hirsute.

Fig. 221.—*Velinus malayus*.

Var. As in specimen figured, with the femora annulated with fuscous.

Length 18 to 21 millim.

Hab. Burma; Karennee (*Fea*).—Malay Peninsula.

1258. **Velinus annulatus**, *Dist. A. M. N. H.* (5) iii, p. 131 (1879).

Luteous; head above, antennæ, scutellum, spots to connexivum above and beneath, irregular shadings to lateral areas of abdomen beneath, annulations to femora, basal annulations and apices to tibiæ, and tarsi black: medial linear lines to both areas of head, lateral areas in front of eyes and a linear spot behind eyes, annulations to basal joint of antennæ, and apex of scutellum luteous: corium purplish-red; membrane bronzy-black, its apical area pale fuliginous; first joint of antennæ about twice the length of head; basal joint of rostrum almost reaching posterior margin of eyes; anterior lobe of pronotum medially impressed, the impression continued to anterior area of posterior lobe.

Var. *a*. Tibiæ wholly black, with two luteous annulations near base.

Length 15 to 16 millim.

Hab. Assam; East Gáro and North Khási Hills (*Chennell*). Burma; Karennee (*Fea*).—West Yunnan.

Division *SYCANARIA.*

Head long, slender, distinctly longer than pronotum; pronotum with the anterior lobe posteriorly impressed, beyond the anterior area of the posterior lobe the impression is not continued; abdomen on each side much dilated; postocular area of head much longer than anteocular area; second joint of rostrum longer than first.

Synopsis of Genera.

A. Pronotum and scutellum unarmed.
  a. Body depressed, flattened.
    a. First joint of rostrum a little shorter than second .... HOMALOSPHODRUS, [p. 348.
    b. Second joint of rostrum twice as long as first .... NARSETES, p. 349.
  b. Body not depressed or flattened.
B. Pronotum with the posterior lobe provided with two tubercles near base; scutellum unarmed .... ARCESIUS, p. 350.
C. Pronotum unarmed; scutellum usually with a long apical spine .... SYCANUS, p. 351.

Genus **HOMALOSPHODRUS.**

Homalosphodrus, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 278; *id. En. Hem.* iv, p. 11 (1874).
Parsialus, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 33.

Fig. 222.—*Homalosphodrus brachiatis.*

Type, *H. depressus*, Stål.

Distribution. Oriental Region.

Body strongly depressed: head much longer than pronotum, nearly as long as anterior femora, postocular longer than the anteocular area; basal joint of antennæ a little longer than head; rostrum moderately slender, first joint a little shorter than second; pronotum and scutellum unarmed; abdomen on each side moderately dilated; legs long, of moderate thickness, anterior femora a little incrassated; anterior tibiæ as long as anterior femora and trochanters together; femora subnodulose; membrane considerably passing abdominal apex.

1259. **Homalosphodrus brachialis**, *Stål* (Parsialus), *Ann. Soc. Ent. Fr.* 1863, p. 34.

Black, impunctate, fuscously pilose; intermediate and posterior femora with a pale stramineous annulation beyond middle: apices of intermediate and posterior tibiæ pale ochraceous; abdomen sanguineous; connexivum (excluding apex) black with pale stramineous spots above and beneath; anterior lobe of pronotum centrally impressed; apex of membrane fuscous-brown, somewhat longly passing abdominal apex; legs longly pilose; basal areas of tibiæ a little incrassated.

Var. Legs unicolorous; only posterior femora obscurely annulated.

Length 17 millim.

Hab. Assam; East Gáro Hills (*Chennell*). Burma (*Coll. Dist.*).—Philippine Islands (*Brit. Mus.*).

1260. **Homalosphodrus depressus**, *Stål* (Parsialus), *Ann. Soc. Ent. Fr.* 1863, p. 34.

Black, impunctate, fuscously pilose; connexivum pale stramineous, with large black spots above and beneath; sixth and anal abdominal segments sanguineous; hemelytra slightly tinted with violaceous; tibiæ slightly incrassated at base; anterior pronotal lobe centrally impressed; lateral pronotal margins oblique; posterior femora with a pale stramineous annulation beyond middle; legs longly pilose; abdominal margins dilated and slightly sinuate; apical areas of the tibiæ, especially the intermediate and posterior tibiæ, fuscous.

Length 18 to 20 millim.

Hab. Assam; East Gáro Hills (*Chennell*).

It is probable that this and the preceding species may ultimately prove to be conspecific.

Genus **NARSETES**.

Narsetes, *Dist. A. M. N. H.* (7) xi, p. 358 (1903).

Type, *N. longinus*, Dist.

Distribution. Oriental Region.

Head long, about as long as the pronotum and scutellum together, postocular portion a little longer than the ante-ocular; rostrum with the second joint very long, about twice as long as first; body depressed, flat; pronotum transversely constricted before middle, anterior lobe centrally sulcate, anterior angles obscurely tuberculous, posterior lobe entire, lateral angles obscurely angulate, but not prominent, posterior margin very slightly sinuate, nearly straight; scutellum unarmed; hemelytra about reaching the apex of the abdomen, membrane nearly twice as long as corium; abdomen on each side moderately dilated and compressed; legs long, tibiæ about as long as femora, posterior

tibiæ a little longer; prosternum distinctly sulcated; antennæ with the first joint slightly longer than the anterior femora.

Allied to the genus *Homalosphodrus*; differs by structure of rostrum, &c.

1261. **Narsetes longinus**, *Dist. A. M. N. H.* (7) xi, p. 358 (1903).

Black, shining; posterior lobe of pronotum and corium either ochraceous or greyish-white; margins of abdomen above and beneath luteous or ochraceous, sometimes spotted with black;

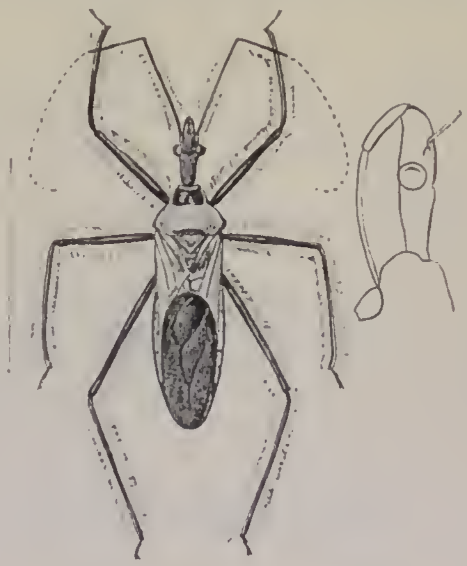

Fig. 223.—*Narsetes longinus.*

clavus (excluding basal area) piceous; body and legs moderately pilose, the lateral margins of head and the legs longly pilose; antennæ with the first joint slightly longer than the anterior femora.

Length 25 millim.

Hab. Assam; Khási Hills (*Chennell*).—Cambodia (*Brit. Mus.*).

Genus **ARCESIUS**.

Arcesius, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 35; *id. En. Hem.* iv, p. 11 (1874).

Type, *A. severus*, Stål, from the island of Batchian.

Distribution. Oriental and Papuan Regions.

Head long, much longer than pronotum, postocular much longer than anteocular portion of head; antennæ very long, slender, first joint subequal in length to, or a little longer than, head; rostrum moderately slender, basal joint subequal in length to anteocular portion of head, much shorter than second joint; pronotum strongly constricted before middle, anterior lobe unarmed, centrally impressed, posterior lobe with two tubercles near base, lateral

angles moderately prominent, posterior margin moderately reflexed; hemelytra passing abdominal apex; abdomen on each side ampliated and compressed; anterior tibiæ equal in length to anterior femora and trochanters together.

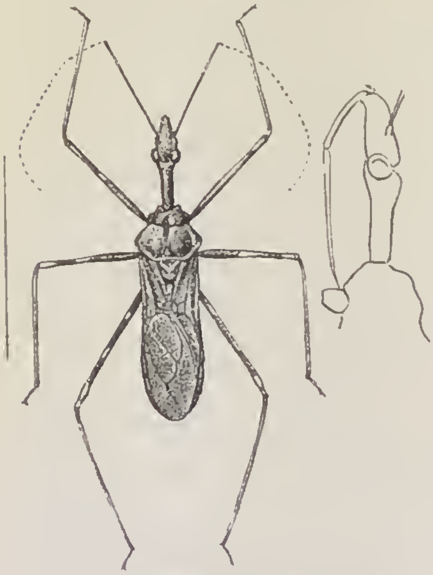

Fig. 224.—*Arcesius fusculus.*

1262. **Arcesius fusculus**, sp. n.

Dark fuscous; biannulations to femora, second and third joints of rostrum, coxæ and trochanters brownish-ochraceous; head beneath, sixth segment and disk of anal segment ochraceous; head a little longer than pronotum and scutellum together; first joint of antennæ about as long as head with anterior lobe of pronotum; posterior pronotal lobe with two obscure and obtuse tuberculous spines.

Length 22 millim.

Hab. Burma; Karennee.

Genus SYCANUS.

Sycanus, *Amy. & Serv. Hém.* p. 360 (1843); *Dohrn, Stett. ent. Zeit.* xx, pp. 93 & 96 (1859); *Stål, Hem. Afr.* iii. pp. 51 & 72 (1865); *id. En. Hem.* iv, p. 11 (1874).

Cosmosphodrus, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 278.

Type, *S. collaris*, Fabr.

Distribution. Ethiopian and Oriental Regions, and China.

Body elongately ovate; head long, somewhat slender, about as long as pronotum and scutellum together, postocular much longer than anteocular area; rostrum with the basal joint longer than anteocular portion of head, shorter than second joint; first joint of antennæ about as long as anterior femora; pronotum constricted before middle, anterior lobe much narrower than posterior which is rugosely punctate; scutellum generally provided with a long erect spine; abdomen on each side strongly roundly ampliated.

A. *Scutellum with a long erect or suberect spine, its apex bifid.*

a. *Pronotum black, unicolorous.*

α. *Apical half of corium pale stramineous.*

1263. **Sycanus collaris**, *Fabr.* (Reduvius) *Spec. Ins.* ii, p. 380 (1781); *id.* (Zelus) *Syst. Rhyng.* p. 285 (1803); *Herr.-Schäff.* (Arilus) *Wanz. Ins.* viii, p. 37, f. 813 (1848); *Amy. & Serv. Hém.*

p. 360 (1843); *Dohrn, Stett. ent. Zeit.* xx, p. 98 (1859); *Stål. En. Hem.* iv, p. 28 (1874); *Dist. A. M. N. H.* (7) xi, p. 212 (1903).
Cimex carbonarius, *Gmel. Syst. Nat.* 1, iv, p. 2199 (1788).
Reduvius longicollis, *Lepell. & Serv. Enc. Méth.* x, p. 278 (1825).
Sycanus leucomesus, *Walk. Cat. Het.* viii, p. 84 (1873).

Fig. 225.—*Sycanus collaris.*

Black; pronotum piceous; about apical half of corium (excluding apical angle) and basal margin of membrane stramineous; membrane bronzy; antennæ black. basal and subapical annulations to first joint, subbasal annulation to second joint, and apex of rostrum castaneous; head about as long as pronotum and scutellum together; antennæ with the first joint subequal in length to anterior femora. scutellar spine long, a little obliquely erect. its apex distinctly and somewhat broadly bifid; abdomen strongly dilated on each side, especially at the third and fourth segments, the posterior angles of the third and fourth segments more or less acute.

Length 22 to 25 millim.

Hab. Assam; North Khási Hills (*Chennell*). Ceylon (*Green*).—Malay Peninsula, and several islands of the Malayan Archipelago.

1264. **Sycanus reclinatus**, *Dohrn, Stett. ent. Zeit.* xx, p. 98 (1859).

Closely allied in general markings and appearance to *S. collaris*. but antennæ without castaneous annulations, and the scutellar spine recurved posteriorly, not obliquely erect, its apex bifid; other characters as in *S. collaris*.

Length 19 to 20 millim.

Hab. Ceylon (*Green*).

b. Apical half of corium golden-yellow.

1265. **Sycanus croceovittatus**, *Dohrn, Stett. ent. Zeit.* xx, p. 97 (1859).

Black; posterior lobe of pronotum piceous; about apical half of corium (excluding apical angle) and basal margin of membrane golden-yellow; second and third joints of rostrum pale castaneous; head about as long as pronotum and scutellum together; antennæ unicolorous, first joint subequal in length to anterior femora; scutellar spine long, suberect, a little obliquely curved backward, its apex bifid; abdominal margins strongly ampliated and upwardly reflexed (especially the third and fourth segments), second, third,

fourth, and fifth segments with a distinct tuberculous elevation on upper surface, posterior angles of second and third segments more or less acute.

Length 22 to 25 millim.

Hab. Burma; Rangoon (*Bingham*), Karennee, Schwegoo-Myo (*Fea*).—Hainan Island (*Coll. Dist.*). China.

c. Apical third of corium stramineous or ochraceous.

1266. **Sycanus affinis**, *Reut. Act. Soc. Sc. Fenn.* xii, p. 285 (1881).

Black, posterior lobe of pronotum sometimes piceous; about apical third of corium (excluding posterior angle) and basal margin of membrane very narrowly stramineous or ochraceous; membrane bronzy; rostrum with the second and third joints castaneous; head about as long as pronotum and scutellum together; antennæ unicolorous, first joint a little shorter than anterior femora; scutellar spine long, a little obliquely erect, its apex bifid; abdominal margins dilated, especially the third and fourth segments, posterior angle of second segment acute, margins of third and fourth convex.

Length 24 to 26 millim.

Hab. Assam; Margherita (*Doherty*), Sadiya. Darjeeling (*Stockholm Mus.*). Malabar, Trivandrum (*Coll. Dist.*).

d. Apical margin of corium ochraceous.

1267. **Sycanus bifidus**, *Fabr.* (Reduvius) *Mant. Ins.* ii, p. 312 (1787); *id.* (Zelus) *Syst. Rhyng.* p. 285 (1803); *Westw.* (Harpactor) *in Don. Ins. China*, p. 50, pl. xxi, f. 5 (1842); *Dohrn, Stett. ent. Zeit.* xx, p. 97 (1859); *Stål, En. Hem.* iv, p. 28 (1874).
Stoll, Pun. f. 275.

Head, corium, abdomen and legs shining bluish-black, pronotum and sternum piceous; apical margins of corium and basal margins of membrane reddish-ochraceous; membrane bronzy-brown; connexivum unspotted. The antennæ (which are absent from the specimen examined) are stated by Dohrn to be annulated with ferrugineous. Head as long as pronotum and scutellum; pronotum granulate; spine of scutellum long, obliquely erect, its apex strongly bifid; abdomen laterally dilated, especially the third and fourth segments; posterior angles of the second and third segments more or less acute.

Length 21 to 22 millim.

Hab. Bengal.—Also recorded from China and Java.

b. *Pronotum black, with the basal margins ochraceous.*

1268. **Sycanus semimarginatus**, *Walk. Cat. Het.* viii, p. 85 (1873).

Head, antennæ, and rostrum black; base of first joint of antennæ and apex of rostrum castaneous; pronotum and sternum piceous, the first with the posterior lateral and basal margins

ochraceous or testaceous; corium black, the apical area broadly stramineous; membrane bronzy-brown, its base stramineous, its apical area pale fuliginous; connexivum above and beneath luteous, with broad transverse black spots; abdomen beneath black, with subobsolete luteous transverse fasciæ; coxæ, particularly the anterior, luteous; head about as long as anterior femora; first joint of antennæ about as long as head; pronotum granulate; apex of scutellum erect, obscurely bifid; abdominal margins somewhat strongly dilated, especially the third and fourth segments, posterior angles of the second and third segments more or less acute.

Length 22 to 23 millim.

Hab. Sylhet (*Bowring, Brit. Mus.*).—Penang (*Brit. Mus.*).

c. *Pronotum ochraceous.*

1269. **Sycanus villicus**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 34.

Black; pronotum, lateral margins of prosternum, coxæ, coxal spots, and apical half of corium (excluding apical angle) dark ochraceous; membrane pale bronzy, its basal margin dark ochraceous; apex of rostrum more or less castaneous; head about as long as pronotum and scutellum together; antennæ black, basal joint with two broad annulations, and second joint with a subbasal annulation, castaneous; scutellar spine long, a little obliquely erect, its apex bifid; lateral margins of abdomen broadly dilated, especially the third and fourth segments, posterior angle of second segment acute, the second, third, fourth, and fifth segments with a distinct tuberculous elevation on upper surface.

Length 26 to 27 millim.

Hab. Burma (*Coll. Dist. & Stockholm Mus.*).—Cambodia (*Brit. Mus.*).

d. *Pronotum sanguineous.*

1270. **Sycanus falleni**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 34.

Black; pronotum, corium, dilated connexivum, prosternum, coxæ, costal spots, and posterior margins of abdominal segments beneath sanguineous; connexivum with broad, transverse, black segmental spots; membrane very pale bronzy, its basal margin sanguineous; extreme base of antennæ, and a spot on each side of head in front of antennæ, dull red; head about as long as pronotum and scutellum together; first joint of antennæ subequal in length to anterior femora; scutellar spine longly obliquely erect, its apex bifid; abdomen on each side very strongly ampliated and directed upward, the margins irregularly convex, without inner tuberculous elevations.

Length 23 to 26 millim.

Hab. Tenasserim; Attaran Valley (*Bingham*).—Cambodia (*Brit. Mus.*).

B. *Scutellum armed with a moderately long erect spine, its apex acute, not bifid.*

1271. **Sycanus pyrrhomelas**, *Walk. Cat. Het.* viii, p. 85 (1873).

Sanguineous; head, rostrum, antennæ, apex of scutellum, clavus (excluding base), membrane, transverse segmental spots to connexivum, trochanters, legs, some irregular spots to sternum, and the abdomen beneath black; apex of rostrum dull red; head about as long as pronotum and scutellum together; first joint of antennæ a little shorter than anterior femora; scutellar spine only moderately long, erect, acute, not bifid; lateral abdominal margins moderately ampliated, posterior angle of second abdominal segment only obscurely acute.

Length 22 millim.

Hab. "Hindostan" (*Brit. Mus.*). Upper Burma (*Coll. Dist.*).

1272. **Sycanus versicolor**, *Dohrn, Stett. ent. Zeit.* xx, p. 96 (1859); *Dist. A. M. N. H.* (7) xi, p. 212 (1903).
Sycanus miles, *Walk. Cat. Het.* viii, p. 86 (1873).

Black; anterior lobe of pronotum, basal margin and lateral angles of posterior lobe, apex of scutellum, about apical third of corium, extreme basal margin of membrane, connexivum, apex of rostrum, prosternum, coxæ, and costal spots sanguineous; connexivum above and beneath with broad black transverse spots; head about as long as pronotum and scutellum together; basal joint of antennæ a little shorter than anterior femora; scutellar spine sanguineous, somewhat short, erect, its apex acute, not bifid; abdominal lateral margins ampliated, apex of second segment very prominent.

Var. Extreme apical area of corium and basal margin of membrane ochraceous; abdomen beneath with transverse sanguineous fasciæ.

Length 18 to 21 millim.

Hab. Bengal. Burma; Teinzo (*Fea*). Tenasserim; Moulmein (*Fea*).—Penang (*Brit. Mus.*).

C. *Scutellum with a short discal conical tubercle.*

1273. **Sycanus indagator**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 35.

Black; posterior lobe of pronotum and corium sanguineous; lateral dilated abdominal margins flavescent or sanguineous ?, fasciated with black; anterior lobe of pronotum impressed at base, posterior lobe rugosely punctate; scutellum with a short discal conical tubercle; hemelytra rugulose; abdomen a little dilated on each side.

Length 21 millim.

Hab. "India orientalis" (*fide Stål*).

I have not seen this species.

D. *Scutellum without a prominent tubercle or spine.*

1274. **Sycanus inermis**, sp. n.

Head, antennæ, rostrum, anterior lobe of pronotum, body beneath, and legs black; posterior pronotal lobe, scutellum, and hemelytra dark bronzy purplish-brown; dilated connexivum ochraceous or sanguineous, with large transverse black spots; abdomen beneath with an obscure central ochraceous fascia; head about as long as pronotum and scutellum together; first joint of antennæ about as long as anterior femora; scutellum without a distinct raised tubercle or spine; abdominal margins regularly dilated, posterior angles of the second and third segments more or less acute; second, third, fourth, and fifth abdominal segments distinctly tuberculously elevated on upper surface.

Length 24 millim.

Hab. Assam; Dunsiri Valley (*Brit. Mus.*).

1275. **Sycanus atrocyaneus**, sp. n.

Dark indigo-black; dilated connexivum dull red with large transverse black spots; head about as long as pronotum and scutellum together; antennæ mutilated in specimen described; scutellum without a distinct raised tubercle or spine; lateral abdominal margins strongly dilated, posterior angles of the second and third segments more or less acute, second, third, fourth, and fifth segments distinctly tuberculously elevated on upper surface.

Length 26 millim.

Hab. Burma; Ruby Mines (*Doherty*).

Species of uncertain position in the specific arrangement.

1276. **Sycanus ater**, *Wolff* (Reduvius), *Ic. Cim.* iii, p. 120, f. 114 (1882).

"Antennæ five-jointed, setaceous, black; head black, with a long cylindrical collar, two spots behind eyes red; rostrum three-jointed, curved, piceous, intermediate joint longest, last shortest; pronotum black, bilobed, anterior lobe small, subglobose, smooth, shining, anteriorly on each side with a single dentation; posterior lobe subrhomboid, punctured, elevated, scabrous, angles obtuse, prominent; scutellum small, black, spine long, erect, emitted before apex; hemelytra black, shining, small; membrane resplendent fuscous; abdomen above black, shining, lateral margins prominently subangulately elevated, segments tuberculated; beneath black, margins slightly rugose, and with minute white punctures in every segment."

Length (from Wolff's figure) 29 millim.

Hab. "India orientalis" (*Mus. Prof. Esper*).

Division *YOLINARIA*.

In this division the lateral margins of the abdomen are strongly dilated and the lateral segmental areas more or less globosely elevated; head long and slender, longer than pronotum; second joint of rostrum considerably longer than the first; pronotum and scutellum unarmed.

Synopsis of Genera.

A. Lateral dilated abdominal margins profoundly sinuate at incisures.
 a. Second joint of rostrum about half as long again as first; anteocular portion of head distinctly shorter than postocular portion .... YOLINUS, p. 357.
 b. Second joint of rostrum about twice as long as first; anteocular and postocular portion of head subequal in length .... AGRIOLESTES, p. 358.
B. Lateral dilated abdominal margins only slightly sinuate at incisures .... AGRIOSPHODRUS, p. 359.

Genus **YOLINUS**.

Yolinus, *Amy. & Serv. Hém.* p. 358 (1843); *Dohrn, Stett. ent. Zeit.* xx, pp. 93 & 94 (1859); *Stål, Hem. Afr.* iii, p. 52 (1865); *En. Hem.* iv, p. 11 (1874).

Type, *Y. sufflatus*, Amy. & Serv., a Javan species.

Distribution. Oriental Region.

Ovate or subovate, the lateral abdominal margins very strongly dilated, profoundly sinuated at incisures, and globosely elevated; head long, slender, almost as long as pronotum and scutellum together; rostrum with the second joint nearly half as long again as first, which is longer than the anteocular portion of head; anteocular distinctly shorter than postocular portion, first joint of antennæ subequal in length to that of head; scutellum with the apex obtuse, rounded; femora nodulose.

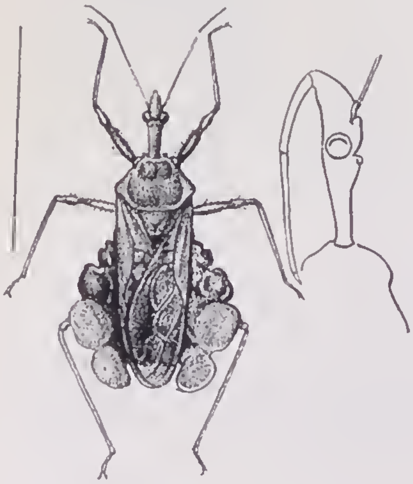

Fig. 226.—*Yolinus conspicuus.*

1277. **Yolinus conspicuus,** *Dist. A. M. N. H.* (7) xi, p. 212 (1903).

Black; connexivum with the fifth and sixth segments bright ochraceous; disk of abdomen beneath dull sanguineous; antennæ with the basal joint biannulated with

ochraceous; posterior femora narrowly and obscurely annulated with fuscous a little before apex.

Allied to *Y. baro*, Stål, from Cambodia (type in Brit. Mus.), but with the pronotum broader and its posterior angles not subnodulose; connexivum much more widely dilated; body and legs distinctly greyishly pilose.

Length, ♀, 24 millim.; greatest breadth of abdomen 13 millim.

Hab. Tavoy (*Atkinson, Brit. Mus.*).

Genus AGRIOLESTES.

Agriolestes, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 280: *En. Hem.* iv, p. 11 (1874).

Type, *A. ineptus*, Stål, a Siamese species.

Distribution. Oriental Region.

Head elongate, almost as long as pronotum and scutellum together, postocular only slightly longer than anteocular portion; rostrum with the second joint about twice as long as first, which is a little longer than anteocular portion of head; pronotum transversely constricted, unarmed; scutellum transverse, posteriorly rounded; hemelytra passing the abdominal apex; abdomen on each side strongly dilated, the segmental marginal areas rounded; legs of moderate length, anterior femora a little incrassated.

1278. **Agriolestes melanopterus**, *Dist. A. M. N. H.* (7) xi, p. 359 (1903).

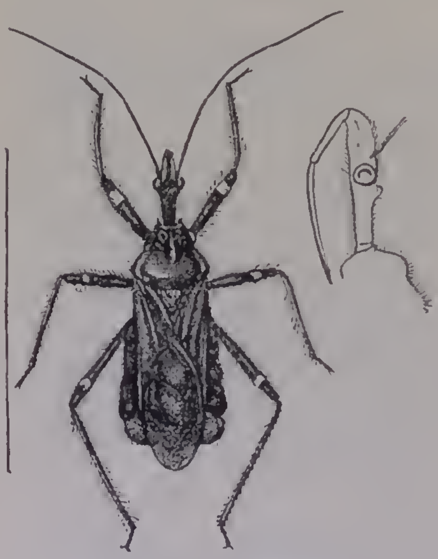

Fig. 227.—*Agriolestes melanopterus.*

Black, shining; basal joint of rostrum, head beneath and lateral margins in front of eyes, anterior lobe of pronotum (excepting black reticulate markings), subapical annulation to femora, underside of basal half of anterior femora, coxæ, trochanters, apex of abdomen, and the last two segments of connexivum ochraceous or reddish-ochraceous; body and legs pilose; first joint of antennæ about as long as head, the ante- and postocular portions of which are about equal in length; abdomen on each side moderately and somewhat lobately dilated.

Length 28 millim.

Hab. Upper Burma (*Bingham, Brit. Mus.*).

Genus AGRIOSPHODRUS.

Agriosphodrus, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 279; *id. En. Hem.* iv, p. 11 (1874).

Type, *A. dohrni*, Stål.

Distribution. Oriental Region.

Head elongate, a little longer than pronotum, anteocular and postocular areas subequal in length; rostrum with the first joint about half the length of second and slightly longer than anteocular portion of head; first joint of antennæ about as long as head; hemelytra slightly passing abdominal apex; abdomen strongly dilated on each side, but not strongly sinuate at the incisures; legs slender, apical areas of the femora obsoletely subnodulose."

1279. **Agriosphodrus dohrni**, *Sign.* (Eulyes) *Ann. Soc. Ent. Fr.* 1862, p. 126; *Stål* (Eulyes), *Ann. Soc. Ent. Fr.* 1863, p. 32.
—— mysticus, *Stål, MS.*

Fig. 228.—*Agriosphodrus dohrni.*

Black, shining, pilose; lateral margins of the abdomen dilated, dull ivory-white, somewhat tinged with ochraceous, with large black segmental spots; pronotum impunctate, medially longitudinally impressed; apex of the last dilated segment more prominent in female than in male.

Length 19 to 22 millim.

Hab. Deccan (*fide* Stål).—China, Shanghai (*Brit. Mus.*).

Stål (*supra*) has given the dimensions as 29 to 32 millim., evidently a misprint or *lapsus*. A specimen also in the British Museum is labelled in Stål's own handwriting "*mysticus*, Stål."

Division *EUAGORASARIA*.

This division includes a group of genera which have the common character of having the head armed with a spine or tubercle behind the base of each antenna; they are all more or less elongate insects, and have the lateral pronotal angles spinous, or at least prominent.

Synopsis of Genera.

1. Anterior tibiæ simple, not inwardly spined before apex.
  - A. Anterior lobe of pronotum not prominently tuberculous on each side.
    - a. Posterior lobe of pronotum not discally spined.
      - *a*. First joint of rostrum considerably shorter than second.
        - *a'*. Head with a tubercle behind base of each antenna .... EUAGORAS, p. 363.
        - *b'*. Head spined behind base of each antenna .... MACRACANTHOPSIS, [p. 362.
      - *b*. First joint of rostrum longer than second.
        - *a'*. Head shorter than pronotum.
          - a^2. Anteocular and postocular areas of head about equal in length .... CYDNOCORIS, p. 361.
          - b^2. Postocular area of head about half as long again as anteocular .... VILLANOVANUS, p. 364.
        - *b'*. Head about as long as pronotum. ENDOCHUS, p. 365.
    - b. Posterior lobe of pronotum discally spined.
      - *a*. Head about as long as pronotum .. PLATERUS, p. 375.
      - *b*. Head shorter than pronotum.
        - *a'*. Rostrum with the first joint equal to the remaining joints in length.
          - a^2. Head spined behind the base of each antenna; scutellum posteriorly with a more or less suberect spine .... ALCMENA, p. 369.
        - *b'*. Rostrum with the first joint a little shorter than remaining joints together.
          - b^2. Head with a tubercle behind base of each antenna; scutellum without a suberect spine .... EPIDAUS, p. 371.
    - c. Anterior and posterior lobes of pronotum discally spined.
      - *a*. Ante- and postocular areas of head about equal in length; lateral margins of abdomen dilated .... BRASSIVOLA, p. 373.
      - *b*. Postocular longer than anteocular area of head; abdominal margins not dilated .... BARTACUS, p. 374.
  - B. Anterior lobe of pronotum prominently tuberculous on each side .... ISYNDUS, p. 376.
2. Anterior tibiæ incurved and spined before apex .... RIHIRBUS, p. 378.

Genus CYDNOCORIS.

Cydnocoris, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 274; *id. En. Hem.* iv, p. 10 (1874).
Cutocoris, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 374; *id. Hem. Afr.* iii, p. 53 (1865).

Type, *C. gilvus*, Burm.
Distribution. Oriental and Papuan Regions, and Japan.

Body long; head oval, shorter than pronotum, spined on each side behind bases of antennæ, eyes somewhat prominent, area of each ocellus tuberculous; rostrum short, incrassate, first joint slightly longer than second; pronotum constricted before middle, anterior lobe centrally very strongly impressed, lateral posterior angles prominent; legs not elongated, posterior coxæ wider apart than intermediate coxæ, anterior tibiæ about as long as the femora and trochanters together.

1280. **Cydnocoris gilvus**, *Burm.* (Myocoris) *Tr. E. S.* ii, p. 104 (1838); *Dist. A. M. N. H.* (7) xi, p. 245 (1903).
Cydnocoris tagalicus, ♀, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 274.
Reduvius erythrinus, *Walk. Cat. Het.* vii, p. 200 (1873).

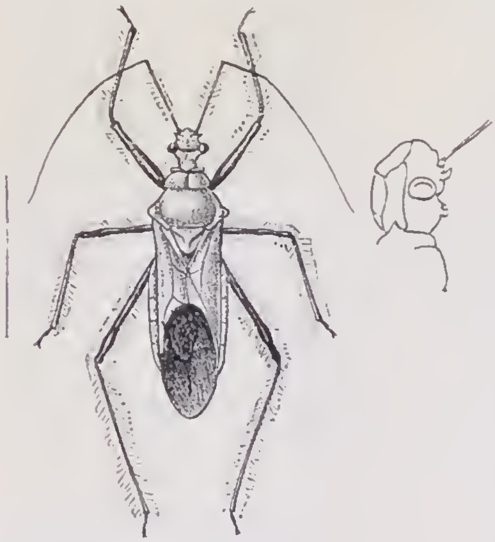

Fig. 229.—*Cydnocoris gilvus.*

Sanguineous; apex of rostrum, the antennæ, eyes and the transverse impression between them, anterior margin of pronotum, membrane, anterior and posterior areas of prosternum, meso- and metasterna (excluding lateral margins), coxæ (excluding base), trochanters, legs, and transverse fasciæ to abdomen beneath black; anterior spines to head curved; first joint of antennæ subequal in length to anterior femora; legs somewhat longly pilose.

Length 16 to 18 millim.

Hab. Ceylon (*fide Dohrn*). Burma; Bhamo, Karennee (*Fea*).—Sumatra, Java.

1281. **Cydnocoris crocatus**, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 274; *id. En. Hem.* iv, p. 26 (1874).

Golden-yellow, shining; antennæ, apex of rostrum, eyes and transverse fascia between them, apices of femora, bases of anterior and intermediate tibiæ, the posterior tibiæ, and the tarsi black;

membrane black or violaceous-black; first joint of antennæ about equal in length to pronotum.

Var. *a.* Anterior pronotal angles and two discal spots to posterior pronotal lobe black.

Var. *b.* Anterior and intermediate legs and posterior femora unicolorous, tarsi black; a transverse spot near apex of corium black.

Var. *c.* Resembling var. *b*, but with the membrane pale shining ochraceous.

Length 14 to 15 millim.

Hab. Burma; Bhamo, Karennee (*Fea*).

Genus MACRACANTHOPSIS.

Macracanthopsis, *Reut. Act. Soc. Sc. Fenn.* xii, p. 282 (1881).

Type, *M. nodipes*, Reut.

Distribution. British India and Malay Peninsula.

Head as long as pronotum, anteocular distinctly shorter than postocular area, a long erect spine on each side behind the antennal bases; first joint of rostrum very much shorter than second joint, second about as long as first and third together; first joint of antennæ very slightly longer than head and pronotum together; pronotum with the anterior lobe tumid and centrally impressed, posterior lobe centrally foveately impressed, impression not reaching the posterior margin, posterior lateral angles subprominent; scutellum with the margins and apex carinately elevate, margins of abdomen a little dilated; legs slender, anterior femora moderately incrassated and nodulose, apices of intermediate and posterior femora nodulose.

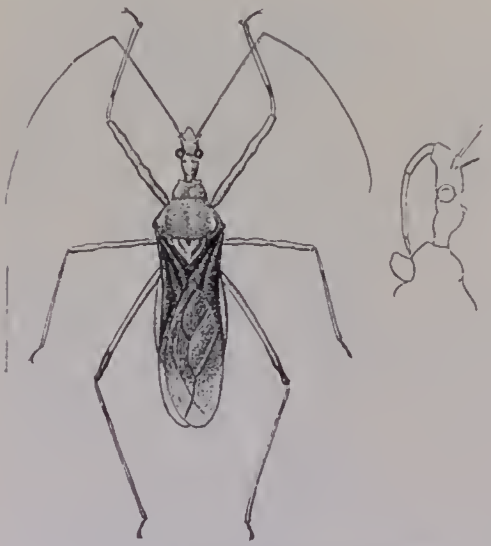

Fig. 230.—*Macracanthopsis nodipes.*

1282. **Macracanthopsis nodipes**, *Reut. Act. Soc. Sc. Fenn.* xii, p. 283 (1881).

Luteous; antennæ and spines behind their base, eyes, hemelytra, apices of posterior femora, and subbasal annulations to tibiæ black; connexivum and abdomen beneath very pale stramineous, the last with a narrow sublateral black fascia; apices of tibiæ and the tarsi infuscated.

Length 10 to $10\frac{1}{2}$ millim.

Hab. Darjeeling (*Stockholm Mus.*). Burma; Karennee (*Fea*).—Malay Peninsula.

Genus EUAGORAS.

Euagoras, *Burm.* (part.) *Handb.* ii, p. 226 (1835); *Stål, Stett. ent. Zeit.* xxii, p. 130 (1861); *id. Hem. Afr.* iii, p. 51 (1865); *id. En. Hem.* iv, p. 10 (1874).

Darbanus, *Amy. & Serr. Hém.* p. 370 (1843); *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 194.

Type, *E. stollii*, Burm., a Javan species.

Distribution. Oriental and Papuan Regions.

Head cylindrical, about as long as pronotum, a tubercle behind the base of each antenna, immediately behind eyes somewhat tuberculous, postocular a little longer than anteocular area; first joint of antennæ subequal in length to anterior femora; rostrum with the first much shorter than second joint; pronotum with the anterior lobe medially impressed, posterior lobe armed with a long spine near each lateral angle; abdomen beyond middle moderately ampliated, a little broader than the hemelytra; legs long, slender.

1283. **Euagoras plagiatus,** *Burm.* (Zelus) *Nov. Act. Ac. Nat. Cur.* xvi, *Suppl.* i, p. 303 (1834); *Stål, Stett. ent. Zeit.* xxii, p. 136 (1861); *id. En. Hem.* iv, p. 24 (1874).

Darbanus nigrolineatus, *Amy. & Serv. Hém.* p. 371 (1843).

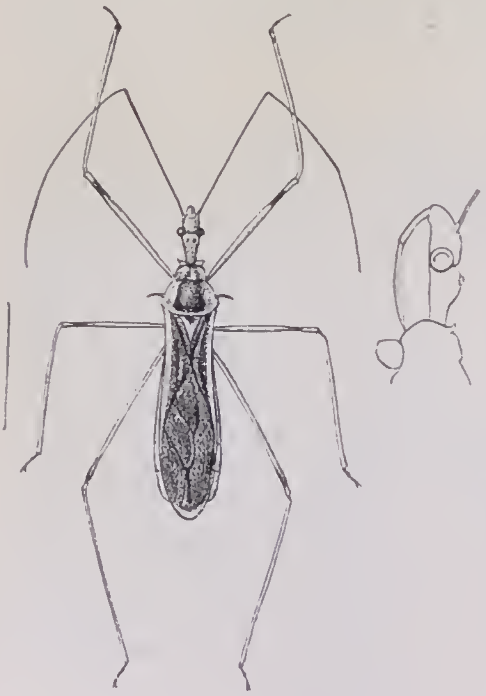

Fig. 231.—*Euagoras plagiatus.*

Head, pronotum, and scutellum reddish-ochraceous; a broad central longitudinal spot to posterior pronotal lobe, the hemelytra, and sternum black; lateral margins of hemelytra, lateral margins of sternum, abdomen beneath and legs very pale luteous; femora linearly streaked with black and with a subapical black annulation; abdomen beneath with a broad black fascia on each lateral area; acetabula luteous; coxæ reddish-ochraceous; antennæ fuscous, broadly annulated with ochraceous; rostrum luteous, its apex black; posterior spines to pronotum curved and reflexed; first joint of antennæ as long as anterior femora, or as the head, pronotum, and scutellum together; body above finely greyishly sericeous.

Length 13 to 14 millim.

Hab. Assam; East Gáro Hills (*Chennell*). Bor Ghát (*Dixon*), Burma; Palon, Bhamo, Karennee (*Fea*). Tenasserim; Thaungyin

(*Bingham*). Meetan (*Fea*). Andamans; Port Blair (*Meldola*).—Java, Philippines.

1284. **Euagoras fuscispinus**, *Stål* (Darbanus), *Öfv. Vet.-Ak. Förh.* 1859, p. 194; *id. Stett. ent. Zeit.* xxii, p. 135 (1861).

Flavous, testaceous, sparingly griseous-sericeous; eyes, lateral margins of head behind eyes, lateral pronotal spines, trochanters, and a broad lateral abdominal fascia on the fourth and fifth segments black; disk of posterior pronotal lobe, three or four annulations to femora, and about two basal annulations to tibiæ dark fuscous; corium sometimes fuscous, but in this case with the lateral margin and venation flavous or ochraceous; antennæ ochraceous, sometimes fuscous; rostrum with the apices of the joints fuscous; first joint of antennæ about as long as head, pronotum and scutellum together; basal joint of rostrum slightly longer than anteocular portion of head, much shorter than second joint; apices of femora subnodulose; pronotal spines long, acute, directed horizontally and a little upward.

Length 12 to 13½ millim.

Hab. Ceylon; Kandy (*Green*).

Genus **VILLANOVANUS**, nov.

Type, *V. dichrous*, Stål.

Distribution. British India.

Body elongate; head shorter than pronotum, with a prominent spine behind the base of each antenna, postocular area about half as long again as anteocular area, transversely impressed between eyes, and tuberculously elevated behind eyes; rostrum with the first joint a little longer than second, subequal to remaining two joints together; pronotum with the posterior lobe nearly twice as long as anterior lobe, which is sculptured and posteriorly medially impressed, posterior angles shortly spinous; scutellum somewhat long, its apex distinctly acuminate; legs long, anterior tibiæ a little shorter than anterior femora and moderately curved; anterior femora incrassated, shorter than posterior femora, which are as long as first joint of antennæ.

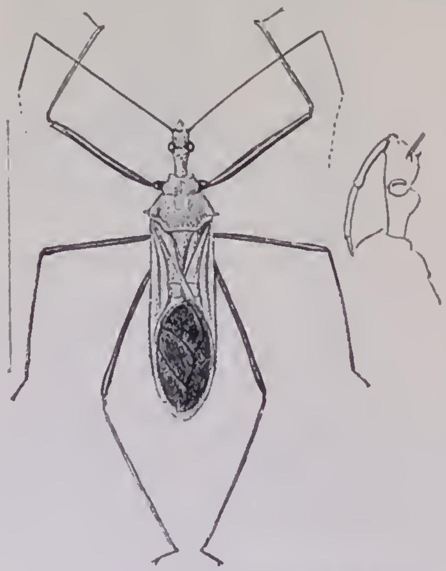

Fig. 232.—*Villanovanus dichrous.*

1285. **Villanovanus dichrous**, *Stål* (Endochus), *Ann. Soc. Ent. Fr.* 1863, p. 26.

Sanguineous; antennæ, eyes, rostrum (excluding base), body beneath and legs black; lateral

margins of sternum and abdomen and abdominal apex sanguineous; membrane shining bluish black; head shorter than pronotum, which has the posterior lateral spines short.

Length 25 millim.

Hab. Sylhet (*Brit. Mus.*). Assam; Nága Hills (*Doherty*).

This appears to be a somewhat local species. It was not found by Fea either in Burma or Tenasserim, and being a large conspicuously coloured insect, could not have been easily overlooked in Southern India or Ceylon.

Genus **ENDOCHUS**.

Endochus, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 194; *id. Stett. ent. Zeit.* xxii, p. 130 (1861); *id. Hem. Afr.* iii, p. 51 (1865); *id. En. Hem.* iv, p. 9 (1874).
Subg. Pnirsus, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 364.

Type, *E. nigricornis*, Stål.

Distribution. Ethiopian, Oriental, and Australasian Regions; China and Japan.

Head about as long as pronotum, cylindrical, spined on each side behind base of antenna, postocular longer, but not quite twice as long as, anteocular portion; antennæ with the first joint variable in length, either as long as head, pronotum and scutellum together, or equal to abdomen or posterior femora; rostrum with the first joint a little longer than the second; pronotum with the anterior lobe medially impressed, lateral angles to posterior lobe acutely spinously produced, disk of posterior lobe unarmed; scutellum with the apex usually distinctly acuminate or angulate.

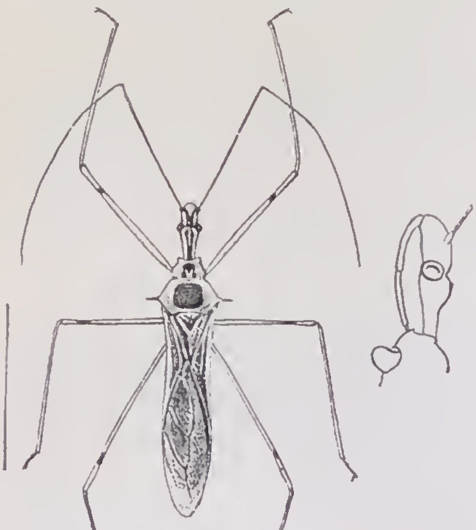

Fig. 233.—*Endochus nigricornis.*

A. *Basal joint of antennæ subequal in length to head, pronotum and scutellum together, or to anterior femora.*

1286. **Endochus nigricornis**, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 194; *Reut. Act. Soc. Sc. Fenn.* p. 280 (1881).

Ochraceous or pale luteous; two central lines to posterior lobe of head (broken in the middle), two central spots preceded by a small arcuated fascia to anterior pronotal lobe, disk of posterior lobe and

the lateral spines, disk of scutellum, corium (excepting base, base of clavus, lateral margins and veins), about seven lateral spots to sternum, stigmatal and sublateral spots to abdomen beneath, spots to coxæ, under surface or vitta to intermediate and posterior femora (excluding apex), and a subapical annulation to all the femora black; posterior tibiæ more or less infuscated; head about as long as pronotum; first joint of antennæ subequal in length to head, pronotum and scutellum together; anterior pronotal lobe centrally impressed at base, posterior lobe with the lateral spines produced horizontally and a little upwardly; antennæ fuscous, broadly annulated with ochraceous; membrane bronzy-fuscous.

Length 22 to 23 millim.

Hab. Sylhet (*Brit. Mus.*). Assam; Sibsagar. Burma: Teinzo, Karennee (*Fea*).—Malay Peninsula, Java.

1287. **Endochus cingalensis,** *Stål, Stett. ent. Zeit.* xxii, p. 135 (1861), ♂.

Endochus consors, *Stål, loc. cit.* p. 135; *Reut. Act. Soc. Sc. Fenn.* xii, p. 280 (1881), ♀.

♂. Head and antennæ black; pronotum, scutellum and sternum castaneous, the first greyishly sericeous; corium dark fuscous, greyishly sericeous; head beneath, rostrum, abdomen beneath and legs luteous, the tarsi and intermediate and posterior tibiæ fuscous; last three segments of abdomen beneath black; membrane dark bronzy; antennæ fuscous, annulated with ochraceous.

♀. Pronotum concolorous with corium, but with the lateral spines and a transverse fascia between them black; a subapical annulation to femora, subobsolete on anterior femora, black; tibiæ luteous; abdomen beneath concolorous, excepting black lateral marginal spots.

First joint of antennæ as long as head, pronotum and scutellum together; apex of scutellum distinctly acuminate.

Length 15 to 19 millim.

Hab. Ceylon (*Green & Lewis*). Burma; Karennee (*Fea*).

The eggs of this species are figured by Sharp (Cambr. Nat. Hist., Insects, ii, p. 558, fig. 272), with an accompanying MS. note by Mr. E. E. Green of Ceylon:—"The eggs are attached to leaf and to each other by a viscid substance; eggs red, the cover pale yellow, with the club white at the tip."

1288. **Endochus albomaculatus,** *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 194.

Pale ochraceous, opaque; above and on sternum minutely speckled with greyish-white; corium with a somewhat large white spot at inner angle near base of membrane; head above, lateral margins and spines to pronotum, basal half of lateral margin to corium, apices of first and second joints of antennæ and apex of abdomen beneath dark fuscous or black; apex of third joint of

antennæ and apical lateral margins to abdomen pale reddish; first joint of antennæ as long as head, pronotum and scutellum together; pronotal lateral spines a little upwardly curved.

Length 16 to 17 millim.

Hab. Ceylon; Kandy (*Green*).

1289. **Endochus atricapillus**, sp. n.

Golden-yellow; head above and antennæ black; intermediate and posterior tibiæ and tarsi fuscous; membrane shining bronzy: head about as long as pronotum, with a short acute spine behind base of each antenna; first antennal joint about as long as anterior femora; rostrum with the basal joint a little longer than the other two joints together; pronotum with the anterior lobe centrally impressed, posterior lobe discally unarmed, lateral spines long, acute, horizontally directed; scutellum with an apical tuberculous spine.

Length 19 millim.

Hab. Sikhim; Mungphu (*Atkinson, Brit. Mus.*).

1290. **Endochus umbrinus**, sp. n.

Brownish-ochraceous, above with lateral areas of sternum sericeous and minutely speckled with greyish; eyes, lateral spines to pronotum, apical half of clavus, and extreme apex of rostrum piceous or black; membrane shining bronzy; connexivum above and beneath with large obscure fuscous spots; head about as long as pronotum; first joint of antennæ subequal in length to head, pronotum and scutellum together; anterior lobe of pronotum finely centrally impressed, lateral pronotal spines long, horizontally directed, notched at base; apex of scutellum distinctly acuminate.

Length 15 millim.

Hab. Bor Ghát (*Dixon*).

1291. **Endochus carbonarius**, *Bredd. Soc. Entomol.* xvii, p. 170 (1903).

Dull black; a narrow central line between the ocelli, the narrow posterior lateral margins and posterior angles of pronotum, underside of head, first and second joints of rostrum, sulcation of prosternum, base of trochanters, line on inner side of anterior femora and a line on underside of posterior femora, triangular medial spots to the posterior ventral segments, and the interrupted narrow abdominal margin pale yellow; clavus and adjacent parts of corium as well as membrane obscure hyaline; third and fourth joints of antennæ rusty-red; sides of abdomen beneath greyishly tomentose, interrupted on each side by two series of smooth deep black spots; spines of antennal tubercles shortly conical, obtuse; pronotum transversely and rather strongly convex, anterior area short, scarcely half as long as posterior area which is thickly and finely wrinkled, lateral spines nearly horizontal, posterior margin

behind spines unarmed; scutellum flatly triangularly raised, and with a small impression before apex; first joint of antennæ longer than head, pronotum and scutellum together.

Length 13 millim.

Hab. Assam; Khási Hills (*fide Breddin*).

I have not seen this species.

B. Basal joint of antennæ subequal in length to abdomen, or to posterior femora.

1292. **Endochus migratorius**, *Dist. A. M. N. H.* (7) xi, p. 246 (1903).

Pale brownish-ochraceous; in fresh specimens the head, pronotum and corium minutely spotted with cretaceous; in faded or rubbed specimens these small spots are obsolete; eyes, lateral margins and lateral spines to pronotum, and lateral margins of corium black; body beneath, legs, antennæ and rostrum pale luteous; membrane pale shining ochraceous; antennæ with the first joint about as long as abdomen, the apex of second joint black, third and fourth joints roseate, luteous at base. Lateral pronotal spines acute, distinctly directed a little backward, a central sulcate impression on posterior margin of anterior lobe; head spined at antenniferous tubercles.

Length 14 millim.

Hab. Ceylon (*Green & Lewis*). Burma; Palon (*Fea*). Tenasserim; Thagata (*Fea*).—China, Hongkong (*Brit. Mus.*).

1293. **Endochus merula**, *Dist. A. M. N. H.* (7) xi, p. 76 (1903).

Black; two discal spots to mesosternum and a narrow lateral abdominal margin obscure brownish-ochreous; head as long as pronotum, the postocular portion considerably longer than the anteocular portion; first joint of antennæ almost as long as the abdomen; pronotum with the anterior lobe distinctly broadly foveate on posterior disk, posterior lobe transversely rugose, the lateral angles spinously produced and directed slightly backward; membrane very dark cupreous, slightly passing the abdominal apex.

Length $15\frac{1}{2}$ millim.

Hab. Burma; Karennee.

1294. **Endochus subniger**, *Dist. A. M. N. H.* (7) xi, p. 76 (1903).

Black; corium, rostrum, disk of mesosternum, coxæ, and legs luteous; a subapical annulation to anterior femora, apices of intermediate and posterior femora, and subbasal annulation to tibiæ black; head as long as pronotum, the postocular longer than the anteocular portion; first joint of antennæ about as long as the abdomen; anterior lobe of pronotum discally foveate, posterior

lateral angles spinously produced; abdomen and corium strongly concavely constricted at centre.

Length 14½ millim.

Hab. Burma; Karennee.

1295. **Endochus atrispinus**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 26.

Pale greyish-stramineous; legs ochraceous; an elongate central spot to anteocular portion of head, anterior tubercles, two small lateral spots and a central basal spot to anterior pronotal lobe, lateral spines to posterior lobe, basal spot to scutellum, lateral margins of prosternum, a lateral spot to mesosternum, stigmatal spots, and a broken submarginal linear fascia to abdomen beneath black; inner vein to corium fuscous; head about as long as pronotum, a short strong spine behind the base of each antenna; anterior pronotal lobe foveately impressed at base, posterior lobe with the disk unarmed, lateral spines horizontally and a little upwardly produced, first joint of antennæ as long as posterior femora.

Length 22 millim.

Hab. India (*Archd. Clerk, Brit. Mus.*).—Sumatra (*Brit. Mus.*).

1296. **Endochus inornatus**, *Stål, Öfv. Vet.-Ak. Förh.* 1866, p. 270.
Var., *Reut. Act. Soc. Sc. Fenn.* xii, p. 281 (1881).

Dark cinnamon-brown; posterior femora (apex excepted) and posterior tibiæ (base excepted) pale luteous; antennæ rufescent, third and fourth joints fuscous, apex of second joint luteous; head about as long as pronotum, a short spine behind each antenna, first joint of antennæ subequal in length to posterior femora; anterior pronotal lobe longitudinally impressed, posterior lobe finely rugulose, between the lateral spines transversely ridged, spines horizontally produced.

Length 20 to 21 millim.

Hab. "North India" (*Brit. Mus.*).

Genus ALCMENA.

Alcmena, *Stål, Öfv. Vet.-Ak. Förh.* 1859, pp. 195 & 376; *id. Stett. ent. Zeit.* xxii, p. 129 (1881); *id. En. Hem.* iv, p. 10 (1874).
Subgen. Dalyrta, *Stål, Stett. ent. Zeit.* xxii, p. 129 (1861).

Type, *A. angusta*, Stål.

Distribution. Oriental Region.

Body slender, narrowed; head slender, narrow, a little shorter than pronotum, behind each antenna armed with an acute spine, postocular area nearly or quite twice as long as anteocular area; antennæ long, first joint more than twice the length of head; rostrum with the first joint subequal in length to remaining joints together; pronotum with the anterior lobe unarmed, posterior with two discal and two lateral spines; scutellum posteriorly with a somewhat long suberect spine; abdomen equally broad as hemelytra.

1297. **Alcmena angusta**, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 195.
Alcmena spinifex, *Stål* (part.), *En. Hem.* iv, p. 24 (1874).

Fuscous black, sparingly (sternum densely) whitishly sericeous; spines of pronotum and scutellum, hemelytra, and abdomen dull flavescent-testaceous, the last with its apex fuscous; rostrum and legs pilose and pale olivaceous-green; apices of femora and tibiæ (the last slightly) and the tarsi fuscous.

Length 12 millim.

Hab. Ceylon (*Berlin Mus.*).

I have not seen this species. Stål subsequently sank it as a synonym of *Cimex spinifex*, Thunb.; but this I have shown to be an error (*cf.* p. 375).

1298. **Alcmena straminipes**, sp. n.

Stramineous; head, pronotum, corium, and scutellum (excluding margins and apex) ochraceous: head with two large spots behind eyes, a lateral fascia on each side of anterior pronotal lobe, and the lateral spines to posterior lobe dark fuscous or black; antennæ with the first and second joints stramineous, basal area and apex of second joint fuscous; head a little shorter than pronotum, a long acute spine on each side behind base of each antenna; rostrum with the first joint much longer than second, about as long as two remaining joints together, first joint ochraceous, second stramineous, third pale castaneous; pronotum with the anterior lobe centrally impressed, posterior lobe with two prominent discal, basal, tuberculous spines, the lateral spines acute, horizontally directed, their apices slightly recurved; scutellum with a slender oblique suberect apical spine; intermediate and posterior femora with their apices subnodulose; membrane very pale fuliginous.

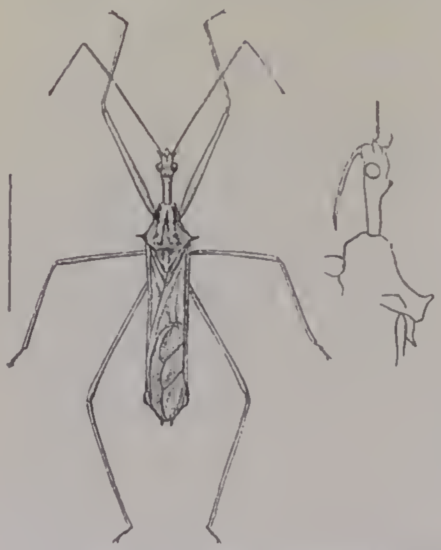

Fig. 234.—*Alcmena straminipes.*

Length 15 millim.

Hab. Nilgiri Hills; Utakamand (*Atkinson, Brit. Mus.*).

1299. **Alcmena maculosa**, sp. n.

Anteocular area of head, antennæ, rostrum, pronotum, scutellum, bases of hemelytra, sternum, and legs ochraceous-brown; post-

ocular area of head above black; corium blackish-brown, membrane bronzy; abdomen beneath, bases of intermediate and posterior femora, and the coxæ and trochanters stramineous; pronotum and corium speckled with small greyish spots; head a little shorter than pronotum, with a short robust spine behind the base of each antenna; rostrum with the first joint subequal in length to the two remaining joints together; first joint of antennæ about as long as posterior femora; pronotum with the anterior lobe sculptured, medially impressed, posterior lobe with two long erect discal and two horizontal lateral spines; scutellum posteriorly spinously produced, very slightly suberect; membrane a little passing abdominal apex.

Length 16 millim.

Hab. Tenasserim (*Coll. Dist.*).

Genus EPIDAUS.

Epidaus, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 193; *id. Stett. ent. Zeit.* xxii, p. 130 (1861); *id. En. Hem.* iv, p. 9 (1874).

Gastroplœus, *Costa, Ann. Mus. Zool. Napoli*, ii, p. 140 (1864).

Type, *E. transversus*, Burm., a species from the Philippines.

Distribution. Oriental and Papuan Regions, and China.

Head cylindrical, a little shorter than pronotum, with a spinous tubercle behind the base of each antenna, postocular area nearly twice as long as anteocular area; antennæ long, basal joint subequal in length to posterior femora; rostrum with the first joint shorter than the two remaining joints together; pronotum with the anterior lobe obsoletely tuberculate, posterior lobe with two discal and two long lateral spines, the last emarginate or notched near base; apex of scutellum obtusely rounded.

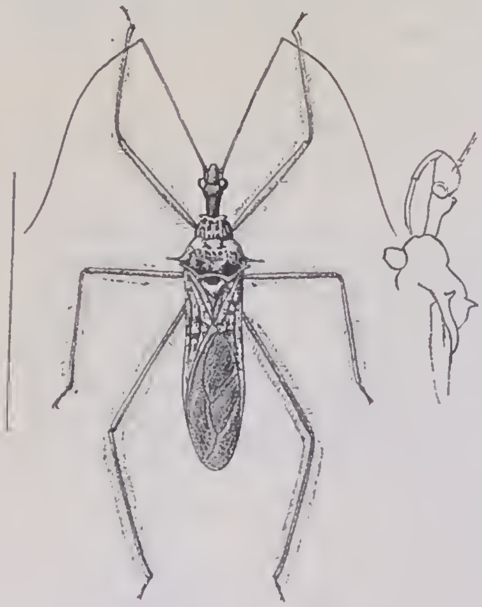

Fig. 235.—*Epidaus conspersus.*

1300. **Epidaus conspersus,** *Stål, Ann. Soc. Ent. Fr.* 1863, p. 26.

Obscure fuscous-testaceous, moderately sericeous; antennæ, rostrum and legs a little paler in hue; body beneath blackish; three spots on anterior area of posterior pronotal lobe and three lateral spots to sternum ochraceous, sericeous; apex of scutellum, numerous small spots to corium, four small spots at each segmental incisure, and a series of sublateral spots

to abdomen beneath ochraceous; lateral margins of abdomen beneath pale brownish-ochraceous; in the female the abdomen beneath is fuscous-testaceous, spotted as in male; head a little shorter than pronotum, behind each antenna obtusely tuberculated; anterior pronotal lobe medially impressed at base, posterior lobe with four long spines, two discal erect, two lateral horizontally directed; first joint of antennæ subequal in length to anterior femora and trochanters together.

Length 25 to 27 millim.

Hab. "Hindostan" (*Clerk*, *Brit. Mus.*). Assam; Gáro Hills (*Chennell*). Andamans; Port Blair (*Meldola*).

1301. **Epidaus atrispinus**, sp. n.

Pale tawny brown; abdomen beneath and legs pale luteous; head behind eyes (excluding under surface), discal and lateral spines to posterior lobe of pronotum, and scutellum (excluding extreme apex) black; rostrum and antennæ luteous; membrane pale, shining, bronzy; head scarcely longer than posterior lobe of pronotum, with a short erect tubercle behind the base of each antenna; first joint of antennæ as long as anterior femora and trochanters together; first joint of rostrum about as long as remaining joints together; anterior lobe of pronotum centrally impressed, posterior lobe with two long, erect, acute, discal, basal spines, the lateral spines long, acute, horizontally directed, and slightly recurved; body above and sternum somewhat thickly pilose, legs more longly pilose.

Length 21 millim.

Hab. Sikhim; Mungphu (*Atkinson*, *Brit. Mus.*).

1302. **Epidaus parvus**, sp. n.

Ochraceous; legs, head beneath, and antennæ stramineous; spines to posterior lobe of pronotum infuscated; membrane infuscated, its apical third pale ochraceous; head shorter than pronotum, with a tubercle behind base of each antenna; basal joint of rostrum a little shorter than two remaining joints together; first joint of antennæ about as long as anterior femora; posterior lobe of pronotum with discal erect and two lateral horizontal spines; apex of scutellum not produced; membrane considerably passing abdominal apex.

Length 15 millim.

Hab. Upper Burma (*Thompson*).

1303. **Epidaus famulus**, *Stål* (Endochus), *Ann. Soc. Ent. Fr.* 1863, p. 27.

Dull ochraceous; head behind eyes and a medial lateral abdominal spot black; lateral and posterior areas of pronotum, disk of scutellum, a basal spot to clavus, and a large subapical spot to corium cretaceous-white; basal joint of antennæ as long as head, pronotum, and scutellum together; anterior lobe of pronotum sculptured and medially impressed, posterior lobe with two discal

spines, the lateral spines long, horizontal, notched at base; scutellum tumid, rounded, not acuminate at apex.

Length 20 to 22 millim.

Hab. "North India" (*Brit. Mus.*). Assam; Noa Dehing and North Khási Hills (*Chennell*). Burma; Ruby Mines (*Coll. Dist.*). Tenasserim, Mt. Mooleyit (*Fea*).

1304. **Epidaus bicolor**, *Dist. A. M. N. H.* (7) xi. p. 247 (1903).

Head, pronotum, scutellum, sternum, coxæ, and anterior femora bright reddish-ochraceous; central lobe of head, antennæ, rostrum (excluding apex), corium, membrane, abdomen beneath, apices of anterior femora, anterior tibiæ and tarsi, and the intermediate and posterior legs pale luteous; eyes and apex of rostrum black; basal joint of antennæ about equal in length to head, pronotum, and scutellum together; postocular area of head a little longer than the anteocular portion; anterior lobe of pronotum centrally sulcate, posterior pronotal lobe with two somewhat long and acute tuberculous discal spines, the lateral angles also longly spinously produced, the posterior angles moderately prominent and rounded; membrane about reaching or slightly passing abdominal apex.

Length 21 to 22 millim.; breadth between pronotal angles $6\frac{1}{2}$ millim.

Hab. Malabar (*Mesurier, Brit. Mus.*).—West China (*Pratt, Coll. Dist.*).

Genus **BRASSIVOLA**, nov.

Type, *B. hystrix*, Dist.

Distribution. Ceylon.

Head elongate, a little shorter than pronotum, with a long erect spine behind the base of each antenna, anteocular and postocular areas about equal in length, area of each ocellus distinctly tuberculous; first joint of rostrum slightly longer than two remaining joints together; first joint of antennæ as long as anterior femora; pronotum with four erect discal spines, two on anterior and two on posterior lobe, lateral posterior spines long, horizontally directed; apex of scutellum moderately acuminate; abdomen beneath gibbous and moderately centrally ridged, lateral margins moderately dilated, the fourth segment more strongly; anterior femora somewhat strongly incrassated.

Fig. 236.—*Brassivola hystrix.*

1305. **Brassivola hystrix**, sp. n.

Pale chocolate-brown, somewhat thickly palely sericeous; antennæ broadly annulated with ochraceous; femora and tibiæ with two central annulations, under surface of first joint of rostrum, and marginal spots to connexivum (excluding fourth segment) ochraceous; membrane shining bronzy; posterior lobe of pronotum with scattered small ochraceous sericeous spots; head very strongly transversely impressed between eyes; scutellum obsoletely spotted with ochraceous on each lateral margin and at apex; corium very thickly palely sericeous.

Length 26 millim.

Hab. Ceylon (*Green*).

Genus **BARTACUS**, nov.

Type, *B. spinifex*, Thunb.

Distribution. India.

Allied to *Brassivola* in having both lobes of the pronotum discally spined, but differing by the non-dilated abdomen; postocular area of the head longer than the anteocular and narrowed behind the area of the ocelli, very strongly impressed between eyes, and with a strong erect spine before the base of each antenna; antennæ mutilated in type; anterior lobe of pronotum much shorter than posterior lobe, basal margin emarginate before scutellum; apex of scutellum moderately acuminate; legs moderately long and slender, anterior femora a little thickened and a little longer than the anterior tibiæ; abdomen not dilated; membrane scarcely passing abdominal apex.

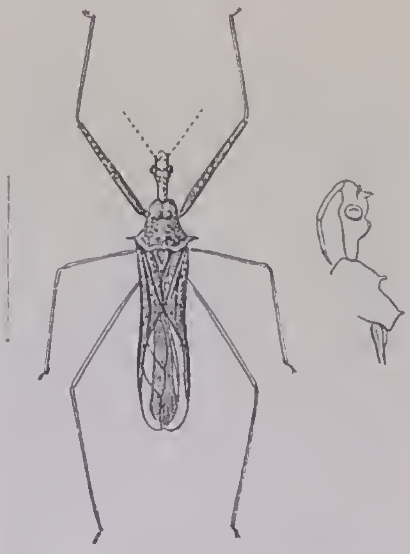

Fig. 237.—*Bartacus spinifex.*

1306. **Bartacus spinifex**, *Thunb.* (Cimex) *Nov. Ins. Sp.* ii, p. 33, pl. 2, fig. 48 (1783); *Stål* (Alcmena), *En. Hem.* iv, p. 24 (1874), excl. syn.

Fuscous-brown, sparingly (sternum densely) spotted minutely with sericeous-white; pronotal lateral spines and abdomen beneath ochraceous; intermediate and posterior legs olivaceous-green, apices of the femora narrowly, apices of the tibiæ broadly, and the tarsi brownish-ochraceous; posterior lobe of pronotum with two short tuberculous spines, the lateral angles produced into rather long slender spines a little directed upward, the anterior lobe with two erect discal tubercles; apex of scutellum a little produced, but without a suberect spine.

Length 17 millim.

Hab. India? (*Upsala Mus.*).

I am indebted to Dr. Einar Lönnberg for allowing me to figure and describe Thunberg's type. This has cleared up some confusion. Stål sank his *Alcmena angusta* as a synonym of this species; but this was a mistake, as *B. spinifex* possesses two spines on each pronotal lobe.

Genus PLATERUS.

Platerus, *Dist. A. M. N. H.* (7) xi, p. 247 (1903)

Type, *P. pilcheri*, Dist.

Distribution. Sikhim.

Head long, about or almost as long as the pronotum, postocular portion a little longer and more slender than the anteocular portion, a long oblique suberect spine near the antenniferous tubercles; antennæ mutilated in type; rostrum with the first joint longer than the second; pronotum subtriangular, the anterior lobe obsoletely tuberculate, its anterior angles moderately prominent, its posterior area profoundly and broadly sulcate, posterior lobe with the lateral angles longly spinously produced, between which are two long, discal, tuberculous, erect spines; abdomen long, scarcely wider than the hemelytra, the fifth segment a little dilated on each side; legs long, anterior femora a littlo incrassated and longer than the tibiæ, intermediate and posterior femora of equal length with their tibiæ.

Allied to *Epidaus*, but with the spined head of *Cydnocoris*.

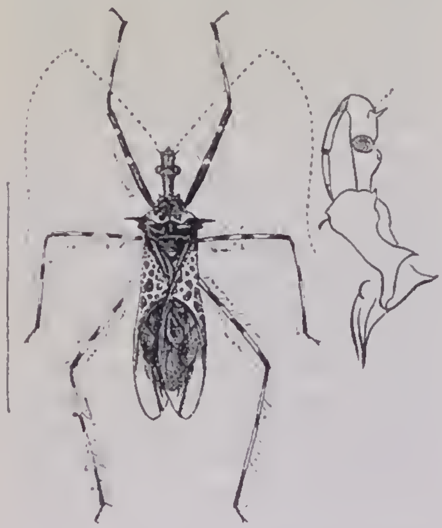

Fig. 238.—*Platerus pilcheri.*

1307. **Platerus pilcheri**, *Dist. A. M. N. H.* (7) xi, p. 248 (1903).

♂. Black; lateral margins of anterior pronotal lobe, a waved transverse fascia to posterior lobe in front of the discal spines, and reticulate markings to corium (excluding base) cretaceous-white; three annulations to femora, two to tibiæ, first and second joints of rostrum, and marginal spots to abdomen luteous; anal appendage in male with two long posteriorly directed spines; lateral pronotal angles strongly spinously produced, their posterior margins distinctly notched near base; membrane fuliginous, inner area black, apical area pale hyaline; base and apex of first joint of rostrum black.

Length (incl. membr.) 23; breadth between pronotal angles 7 millim.

Hab. Sikhim (*Pilcher, Brit. Mus.*).

Genus ISYNDUS.

Isyndus, *Stål, Öfr. Vet.-Ak. Förh.* 1858, p. 445 ; *id. Stett. ent. Zeit.* xxii, p. 130 (1861) ; *id. En. Hem.* iv, p. 9 (1874).

Type, *I. reticulatus*, Stål, a Malaccan species.

Distribution. Oriental Region, China and Japan.

Head considerably shorter than pronotum, anteocular and post-ocular areas subequal in length ; first joint of antennæ as long as anterior femora, behind the base of each antenna tuberculous or subspinous ; rostrum with the first joint a little longer than the second ; pronotum with the anterior lobe armed on each side with a tuberculous spine, disk of posterior lobe unarmed, the lateral angles spinously or prominently produced ; anterior tibiæ as long as anterior femora and trochanters together.

A. *Lateral angles of posterior pronotal lobe acutely spinous.*

1308. **Isyndus heros.** *Fabr.* (Zelus) *Syst. Rhyng.* p. 285 (1803) ; *Stål. Hem. Fabr.* i, p. 101 (1868).

Fig. 239.—*Isyndus heros.*

Dull brownish-ochraceous ; head above from behind antennæ, anterior pronotal lobe (excluding anterior margin), a very broad transverse fascia and the lateral spines to posterior lobe, scutellum, clavus, about basal half and apical angle of corium, membrane, antennæ, apex of rostrum and basal spots beneath first and second joints, some spots and lateral margin to prosternum, segmental incisures and a submarginal series of spots to abdomen beneath, and the legs black ; apices of femora and annulations to antennæ ochraceous ; first joint of antennæ as long as anterior femora ; anterior pronotal lobe strongly tuberculously produced on each side, lateral angles of posterior lobe straightly, acutely, spinously produced.

Var. *a.* Anteocular portion of head ochraceous ; femora ochraceous, biannulated with black.

Var. *b.* Resembling var. *a*, but with the head altogether ochraceous.

Length 21 to 31 millim.

Hab. Assam ; North Khási Hills (*Chennell*). Bor Ghát (*Dixon*). Bangalore. Ceylon (*Green*). Tenasserim ; Malewoon (*Fea*).—Malay Peninsula.

1309. **Isyndus pilosipes,** *Reut. Act. Soc. Sc. Fenn.* xii, p. 279 (1881).

Dark fuscous-brown; antennæ ochraceous; anterior lobe of pronotum, apices of femora, base and apex of first joint, apex of second joint, third joint (excluding base and apex), and base of fourth joint of antennæ piceous or black; legs, rostrum, and body beneath brownish-testaceous; membrane dark bronzy; abdomen beneath with a faint, central, longitudinal, darker line; first joint of antennæ as long as anterior femora; body and legs (especially body beneath) thickly ochraceously pilose; anterior pronotal lobe with a prominent tubercle on each lateral margin, lateral angles of posterior lobe straightly spinous.

Length 23 to 33 millim.

Hab. Sikhim; Darjeeling (*Stockholm Mus.*). Assam; Nága Hills (*Doherty*). Burma; Karennee (*Fea*).

1310. **Isyndus ulysses,** *Stål, Ann. Soc. Ent. Fr.* 1863, p. 28.

Stramineous or very pale luteous; head above and anterior lobe of pronotum black, thickly ochraceously pilose; first and second joints of antennæ, lateral spines and posterior margins to pronotum, disk of scutellum, clavus (excluding base), lateral areas of sternum, sublateral fascia to abdomen beneath, tarsi, and the apex of rostrum piceous or black; membrane bronzy violaceous-black; first joint of antennæ about as long as anterior femora; anterior pronotal lobe with a prominent tubercle on each side, the angles of the posterior lobe longly acutely produced, with a second very short spine a little below their base.

Length 32 to 33 millim.

Hab. Burma; Karennee (*Fea*).—Laos (*Brit. Mus.*).

B. *Lateral angles of posterior pronotal lobe angularly prominent, but not spinous.*

1311. **Isyndus obscurus,** *Dall.* (Harpactor) *Tr. E. S.* new ser. i, p. 7, pl. ii, fig. 4 (1850); *Stål, Ann. Soc. Ent. Fr.* 1863, p. 28; *Reut. Rev. d'Entom.* vii, p. 69 (1888).

Fuscous-brown, corium, rostrum, and sometimes legs brownish-ochraceous; connexivum spotted with ochraceous; antennæ with three annulations to second joint, and apex of third joint, ochraceous; membrane bronzy; first joint of antennæ as long as anterior femora; anterior lobe of pronotum with a prominent tubercle on each lateral margin, the lateral angles of the posterior lobe obtusely angulate, not spinous; body beneath thickly, shortly, ochraceously pilose; abdomen with a distinct, impressed, central, longitudinal fuscous line.

Var. Femora fuscous, the tibiæ ochraceous-brown; connexivum unspotted.

Length 22 to 26 millim.

Hab. Bhutan (*Brit. Mus.*). Assam; Khási Hills and Dunsiri Valley.—Japan; Tokei (*Lewis*).

Genus RIHIRBUS.

Rihirbus, *Stål, Stett. ent. Zeit.* xxii, p. 129 (1861); *id. Hem. Afr.* iii, p. 49 (1865); *En. Hem.* iv, p. 9 (1874).

Type, *R. trochantericus*, Stål.

Distribution. Oriental Region.

Head a little shorter than pronotum, with a spine behind the base of each antenna; first joint of antennæ almost as long as head, pronotum, and scutellum together; rostrum with the first joint a little longer than the other two joints together; anterior lobe of pronotum posteriorly obtusely bi-tuberculated, lateral angles of posterior lobe distinctly straightly toothed; anterior trochanters tumid; apices of the anterior tibiæ incurved and armed with a long tooth.

1312. **Rihirbus trochantericus**, *Stål, Stett. ent. Zeit.* xxii, p. 132 (1861); *id. Öfv. Vet.-Ak. Förh.* 1870, p. 677.

Rihirbus dentipes, *Mayr, Verh. z.-b. Ges. Wien*, xv, p. 437 (1865).

Vars. niger, scutellaris, ruficeps, rufipennis, rufidorsis, tibialis, semiflavus, luctuosus, *Stål, Öfv. Vet.-Ak. Förh.* 1870, p. 677.

Var. testaceus, *Reut. Act. Soc. Sc. Fenn.* xii, p. 279 (1881).

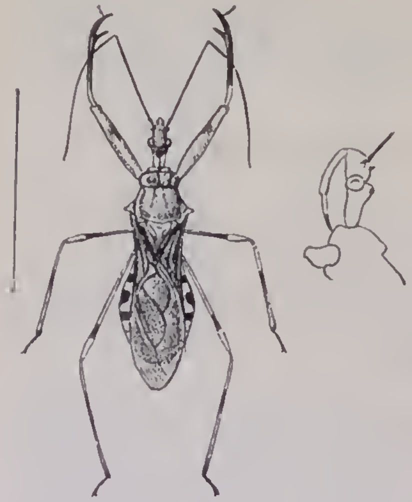

Fig. 240.—*Rihirbus trochantericus.*

"Black, sparingly greyishly sericeous; head beneath and collar near middle, two basal tubercles and a spot on each side of anterior pronotal lobe, lateral and posterior margins of posterior pronotal lobe, apex of scutellum, some indeterminate spots behind middle of corium, trochanters, two obsolete and incomplete annulations to anterior femora, sternum, and abdomen pale reddish-testaceous; prosternum, large lateral spots to meso- and metasterna, and lateral fasciæ to abdomen beneath, anteriorly terminating in a greyish-sericeous line, black."

This is Stål's description of a typical Ceylonese specimen. The vars. in this fauna, which I have examined, are:—

Var. *a*. Sanguineous; head (excluding base and under surface), antennæ, rostrum, legs, lateral areas of meso- and metasterna, and transverse fasciæ to abdomen black; intermediate and posterior femora with a distinct ochraceous annulation.

Var. *b*. Luteous, a spot behind eyes, antennæ, apical angles of corium, membrane, apices of femora, tibiæ and tarsi, apex and apical lateral margins of abdomen black.

Var. *c*. Resembling var. *b*, but with the corium purplish-black, femora subapically annulated with black; connexivum spotted with black. (*This is the variety here figured.*)

Length 18 to 24 millim.

Hab. Ceylon. Burma; Palon, Teinzo, Bhamo (*Fea*).—Philippine Islands.

Division *PANTHOUSARIA*.

This division, represented, so far as my knowledge extends, by the genus *Panthous*, is proved to be extremely distinct by the structure of the pronotum, which is posteriorly dilated and covers the scutellum and base of corium.

Genus **PANTHOUS**.

Panthous, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 42; *id. Hem. Afr.* iii, p. 50 (1865); *id. En. Hem.* iv, p. 8 (1874).

Type, *P. excellens*, Stål.

Distribution. Oriental Region.

Head oblong, unarmed; antennæ of moderate length, first joint about a third longer than the head; rostrum with the first joint a little shorter than the second; pronotum broader than the hemelytra, anterior lobe small, posterior lobe dilated and posteriorly produced over the scutellum and base of corium; legs of moderate length, subnodulose, anterior tibiæ a little longer than the anterior femora.

1313. **Panthous excellens**, *Stål, Ann. Soc. Ent. Fr.* 1863, p. 42.

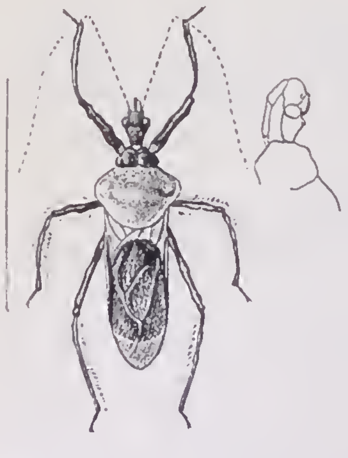

Fig. 241.—*Panthous excellens.*

Ochraceous; head above (excepting apex), antennæ, anterior lobe of pronotum, the greater part of sternum, transverse spots to lateral areas of abdomen beneath, and the legs black; rostrum (excluding apex), coxæ, trochanters, and bases of femora reddish-ochraceous; connexivum dull sanguineous; apex of corium fuscous; membrane olivaceous-black, its apex paler; femora and tibiæ somewhat prominently nodulose; connexivum upwardly recurved; anterior lobe of pronotum medially longitudinally impressed, posterior lobe with the posterior lateral and basal margins moderately ampliated and upwardly reflexed.

Length 24 to 29 millim.

Hab. Assam; Nága Hills (*Doherty*).

1314. **Panthous bimaculatus,** *Dist. A. M. N. H.* (7) xi, p. 249 (1903).

Head, pronotum, corium, rostrum, posterior and lateral margins of prosternum, coxæ, and legs dull reddish-ochraceous; antennæ, anterior margin of pronotum, a central discal spot on each corium, apex of rostrum, and body beneath black; membrane shining, bronzy-black; base of first and sometimes also base of second joint of antennæ, extreme apex of abdomen, and lateral margins of fifth and sixth segments reddish-ochraceous or luteous; anterior pronotal lobe strongly tuberculate, excavate, and medially impressed, posterior lobe very finely transversely striate, the lateral angles broadly rounded and moderately prominent, the posterior margin strongly produced and covering the scutellum; femora moderately nodulose.

Length 20 to 22 millim.; breadth between pronotal angles $5\frac{1}{2}$ to $6\frac{1}{2}$ millim.

Hab. South India; Trivandrum (*Atkinson. Brit. Mus.*), Canara (*Coll. Dist.*).

Division *CORANUSARIA.*

The genus *Coranus* represents a distinct group of the Harpactorinæ in which the antennæ are short and the first joint not longer than the head; the lateral angles of the pronotum are unarmed; the scutellum has no discoidal tubercle, but has a longitudinal carination, which in some cases is produced in a suberect process or spine.

Genus **CORANUS.**

Coranus, *Curtis, Brit. Ent.* x, pl. 453 (1833); *Stål, Hem. Afr.* iii, pp. 49 & 93 (1865); *id. En. Hem.* iv, p. 8 (1874); *Reut. Öfr. Vet.-Ak. Förh.* 1872, No. 6, p. 61.

Colliocoris, *Hahn, Wanz.* ii, p. 23 (1834); *Fieb. Eur. Hem.* pp. 42 & 154 (1861).

Type, *C. subapterus*, de Geer, a Palæarctic species.

Distribution. Palæarctic, Ethiopian, Oriental, and Australasian Regions.

Body oblongly ovate; head robust, oblong, antennæ short, first joint as long as the head or a little shorter; rostrum with the first and second joints variable in length; pronotum unarmed, constricted before middle; scutellum with a medial carination sometimes produced in an elevated suberect process or spine; mesosternum anteriorly provided with a small marginal tubercle; abdomen on each side moderately ampliated; legs of moderate length, anterior femora a little incrassated.

A. Scutellum with an erect conical tuberculous spine.

1315. **Coranus spiniscutis,** *Reut. Act. Soc. Sc. Fenn.* xii, p. 275 (1881).

Testaceous-fuscous, shortly greyishly sericeous and pilose; head black, postocular area with a central linear testaceous line: antennæ brownish-ochraceous, first joint (excepting apex) and base of second joint luteous; corium fuscous, membrane bronzy-fuscous; connexivum ochraceous, spotted with fuscous; abdomen beneath ochraceous, its apex piceous; legs ochraceous, annulations to femora, bases and apices to tibiæ, and apices of tarsi piceous, extreme bases of tibiæ with a pale annulation; first joint of antennæ distinctly shorter than head; scutellum with an erect conical tuberculous spine; first joint of rostrum shorter than second.

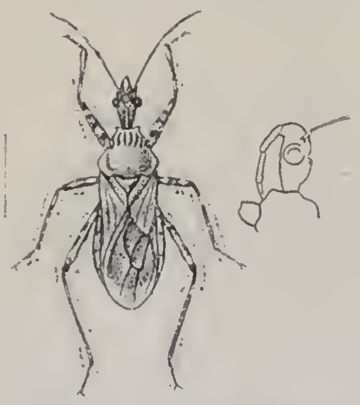

Fig. 242.—*Coranus spiniscutis.*

Length 9 to 10 millim.

Hab. Assam; North Khási Hills (*Chennell*). Ranchi (*Irvine*). Bor Ghát (*Dixon*). Burma; Palon, Bhamo, Karennee (*Fea*).

1316. **Coranus fuscipennis,** *Reut. Act. Soc. Sc. Fenn.* xii, p. 275 (1881).

Black, very sparingly greyishly sericeous or pilose; postocular area of head with a central pale longitudinal line; antennæ piceous, first joint (excepting apex) luteous; corium very pale ochraceous, ferruginous on apical area, clavus and membrane brassy-black: abdomen beneath black, with some pale sublateral testaceous markings on each side; connexivum above and beneath pale testaceous, with transverse piceous spots; femora nodulose, totally black or very obscurely annulated with ferruginous; tibiæ and tarsi black, more or less widely annulated with pale testaceous near base and apex; first joint of antennæ almost as long as head; first joint of rostrum shorter than second; posterior lobe of pronotum densely and strongly granulate; scutellum with an erect conical tuberculous spine.

Length 9 to 10 millim.

Hab. Bor Ghát (*Dixon*).—Sumatra (*fide Reuter*).

1317. **Coranus obscurus,** *Kirby* (Harpactor), *J. Linn. Soc., Zool.* xxiv, p. 120 (1891); *Dist. A. M. N. H.* (7) xi, p. 249 (1903).
Coranus loczyi, *Horv. Termész. Füzetek*, xv, p. 135 (1892).

Piceous, densely greyishly sericeous and pilose; membrane shining bronzy-black; postocular area of head with a central pale

line; antennæ piceous, basal joint (excepting base and apex) ochraceous: tibiæ ochraceous, with basal, medial, and apical piceous annulations; connexivum ochraceous, broadly spotted with black; first joint of antennæ almost as long as head; first joint of rostrum shorter than second; posterior pronotal lobe thickly and coarsely granulate: scutellum with a short erect tuberculous spiny tubercle.

Length 9 to 10 millim.

Hab. Sikhim. Assam; Nága Hills (*Chennell*). Calcutta (*fide Horvath*). Ceylon (*Green*). Burma; Palon (*Fea*).

B. *Scutellum without an erect conical spine or tubercle.*

1318. **Coranus atricapillus**, *Dist. A. M. N. H.* (7) xi, p. 77 (1903).

Head, anterior lobe of pronotum, scutellum, membrane, and prosternum black; posterior lobe of pronotum, corium, and body beneath pale castaneous; connexivum above and beneath black, spotted with luteous: legs luteous, femora annulated with piceous, bases and apices of tibiæ and tarsi (excluding base) piceous; antennæ piceous, basal joint (excluding base and apex) luteous: rostrum luteous, with its apex piceous; femora moderately nodulose; head strongly transversely impressed between eyes; scutellum with carination non-erect: anterior lobe of pronotum deeply centrally sulcate; lateral pronotal angles rounded, subprominent, basal margin concave.

Length $8\frac{1}{2}$ millim.

Hab. Ceylon (*Lewis*); Pundaluoya (*Green*).

Species unknown to writer.

1319. **Coranus wolffi**, *Leth. & Sev. Cat. Gén. Hém.* iii, p. 190 (1896), nom. n.

Reduvius ægyptius, *Wolff, Ic. Cim.* ii, p. 83, fig. 80 (1801), nom. præocc.

Body small, greyishly villose; antennæ four-jointed, griseous, apex fuscous; head porrect, griseous, posteriorly fuscous with a medial pale line; rostrum fuscous, its apex black; pronotum griseously punctate, anterior lobe obscurely bituberculate, with a medial pale line; scutellum fuscous, apex obtusely subreflexed; corium griseous, unspotted; membrane black; abdomen above red, its apex black, connexivum griseous with five black spots; abdomen beneath griseous, unspotted, on each side with a punctured linear impression; legs unarmed, griseous variegated with fuscous; tibiæ with whitish basal annulations.

Length of Wolff's fig. $7\frac{1}{2}$ millim.

Hab. "India orientalis."

Division *PRISTHESANCUSARIA.*

Basal joint of antennæ distinctly longer than the head; lateral pronotal angles more or less spinously produced, the anterior lobe provided with two prominent discal tubercles, the basal angles more or less tuberculously or lobately produced; scutellum with a distinct discal tubercle or erect process.

Only one genus representing the division is at present known in the fauna of British India.

Genus **PRISTHESANCUS.**

Pristhesancus, *Amy. & Serv. Hém.* p. 360 (1843): *Stål, Stett. ent. Zeit.* xxii, p. 131 (1861); *id. Öfv. Vet.-Ak. Förh.* 1870, p. 676; *id. En. Hem.* iv, p. 7 (1874).

Type, *P. dorycus*, Boisd., from the Papuan Islands.

Distribution. Oriental and Australasian Regions.

Body somewhat broadly subelongate; head elongate, shorter than pronotum, the postocular longer than the anteocular portion, first joint of rostrum much shorter than second, head behind antennæ distinctly tuberculated; first joint of antennæ much longer than head, about as long as anterior femora; anterior lobe of pronotum with two prominent discal tubercles, posterior lobe with the lateral angles spinously, and the hind angles more or less tuberculously or lobately produced; scutellum with the disk distinctly, tuberculously, erectly produced; abdomen ampliated and reflexed on each side; legs of moderate length, anterior tibiæ almost equal in length to anterior femora.

Fig. 243.—*Pristhesancus zetterstedti.*

1320. **Pristhesancus zetterstedti**, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 376; *id. Stett. ent. Zeit.* xxii, p. 134 (1861); *id. En. Hem.* iv, p. 17 (1874).

Black; head, pronotum, scutellum, sternum and coxæ purplish; bases of third and fourth joints of antennæ luteous; hemelytra testaceous-flavescent; membrane obscure hyaline; abdomen violaceous-black; discoidal process to scutellum strongly elevated, obtusely bi-tuberculously spinous; abdomen strongly ampliated, its margins angularly undulated.

Length, ♀, 19 millim.

Hab. "North India" (*Stockholm Mus.*).

I am indebted to Dr. Yngve Sjöstedt for affording me an opportunity to figure this species.

Division *POLIDIDUSARIA.*

In this division the anterior femora are granulate, generally nodose or nodulose, and always spinous; it is in fact in the spinous condition of the legs, and generally also of the body, that the principal divisional characteristics are found.

Synopsis of Genera.

A. Head with the central lobe not spinously produced.
  a. First and second joints of rostrum subequal in length .... SCIPINIA, p. 384.
  b. First joint of rostrum longer than second.
    a. Postocular area of head much longer than anteocular; anterior femora spined .... IRANTHA, p. 385.
    b. Postocular area a little longer than anteocular; all the femora spined.. POLIDIDUS, p. 386.
B. Head with the central lobe longly, spinously produced .... HENRICOHAHNIA, p. 387.

Genus SCIPINIA.

Scipinia, *Stål, Stett. ent. Zeit.* xxii, pp. 137 & 138 (1861); *id. En. Hem.* iv, p. 6 (1874).

Type, *S. horrida*, Stål.

Distribution. Oriental and Australasian Regions.

Body subelongate; head above with three long spines on each side and with a number of small obscure spines or spinules between or around them; rostrum with the first and second joints equal in length; first joint of antennæ very slightly longer than head; anterior lobe of pronotum with four long and a number of smaller spines, posterior lobe unarmed, lateral angles a little upwardly directed: mesosternum with a small tubercle on each side; anterior femora moderately incrassated, nodulose, with a long spine above near apex, and with a double series of spines beneath; anterior femora and tibiæ nearly equally long, the last on each side very obsoletely spinulose.

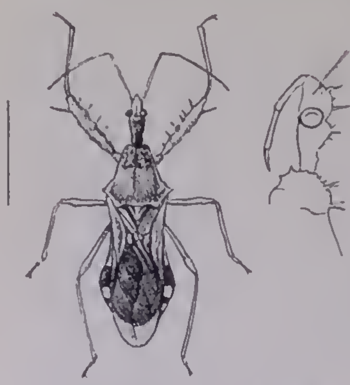

Fig. 244.—*Scipinia horrida.*

1321. **Scipinia horrida**, *Stål* (Sinea). *Freg. Eug. Resa, Ins.* p. 262 (1859); *id. En. Hem.* iv, p. 15 (1874).
Sinea peltastes, *Dohrn, Stett. ent. Zeit.* xxi, p. 406 (1860).

Ochraceous; base of head above and spots to connexivum, the largest on fourth and fifth segments, black; membrane bronzy, its apical area paler, subhyaline; clavus fuscous;

posterior lobe of pronotum granulate, its lateral angles acute; intermediate and posterior femora subnodulose near apices; abdomen in female dilated, especially at fourth and fifth segments.

Length 10 millim.

Hab. Sikhim (*Atkinson, Brit. Mus.*). Ceylon. Burma; Karennee (*Fea*).—Philippines.

Genus **IRANTHA**.

Irantha, *Stål, Stett. ent. Zeit.* xxii, p. 137 (1861); *id. En. Hem.* iv, p. 6 (1874).

Type, *I. armipes*, Stål.

Distribution. Oriental and Papuan Regions.

Body elongate; head subequal in length to pronotum, armed above with three double series of long spines, the two anterior longest, and behind these smaller scattered spines or spinules, narrowed behind eyes, with two small spines near base; first joint of antennæ a little longer than head; rostrum with the first joint a third longer than second; anterior lobe of pronotum with numerous minute acute tubercles and with four rather long spines, posterior lobe unarmed, the lateral angles spinously acute; mesosternum minutely tuberculate on each side; legs of moderate length, anterior femora moderately incrassated, nodose, spinous, the spines beneath and the subapical one above longest; anterior tibiæ shorter than anterior femora and beneath on each side obsoletely densely spinulose.

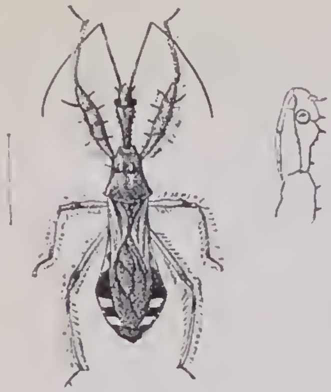

Fig. 245.—*Irantha armipes*, ♀.

1322. **Irantha armipes**, *Stål* (Harpactor), *Öfv. Vet.-Ak. Förh.* 1855, p. 189; *id. Stett. ent. Zeit.* xxii, p. 138 (1861).

Sinea hoplites, *Dohrn, Stett. ent. Zeit.* xxi, p. 406 (1860).

Brownish-ochraceous; first joint of antennæ annulated with fuscous; head piceous; membrane bronzy; connexivum broadly transversely spotted with black, most broadly on the fourth and fifth segments; meso- and meta-sterna and abdomen beneath broadly laterally infuscated; intermediate and posterior legs pale ochraceous, bases of femora and bases and apices of tibiæ a little darker; posterior lobe of pronotum granulate; abdomen in female dilated on each side, especially at fourth and fifth segments; lateral spines to posterior pronotal lobe finely spinously produced in male, shorter and more broadly so in female.

Length 10 millim.

Hab. Ceylon (*Green*).

1323. **Irantha consobrina**, sp. n.

♀. Allied to *I. armipes*, but much paler in hue, ochraceous, head fuscous; spines to head and anterior lobe of pronotum very much longer; lateral abdominal margins at fourth and fifth segments angularly produced: the lateral posterior pronotal angles more angularly produced than in the corresponding sex of *I. armipes*.

Length 10 millim.

Hab. Nilgiri Hills (*Hampson*).

Genus POLIDIDUS.

Polididus, *Stål, Öfv. Vet.-Ak. Förh.* 1858, p. 448; *En. Hem.* iv, p. 6 (1874).

Type, *P. spinosissimus*, Stål, an Ethiopian species.

Distribution. Oriental, Ethiopian, and Australasian Regions; also found in China.

Body moderately elongate: femora, head above and beneath, pronotum, scutellum, and abdominal margins spinose; scutellum with three spines; margins of abdomen thickly spinulose, the spines at angles of segments longest; head with the postocular a little longer than the anteocular area; cellular areas of the membrane elongated; first joint of antennæ and anterior femora subequal in length; first joint of rostrum distinctly longer than the second, first joint longer than anteocular portion of head.

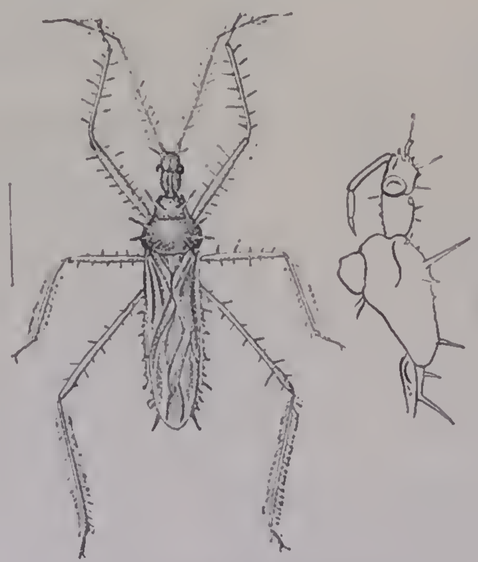

Fig. 246. —*Polididus armatissimus.*

1324. **Polididus armatissimus**, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 376.

Pale brownish-ochraceous; abdomen beneath with a piceous sublateral fascia on each side; sternum infuscated and greyishly

pilose; anterior pronotal lobe with greyish narrow vittæ; head with a long spine behind the base of each antenna and with a number of smaller discal spines; pronotum spinous, the longest spines being two erect on anterior lobe and the lateral spines to posterior lobe; anterior tibiæ spinous, intermediate and posterior tibiæ spinulose; femora strongly spinous.

Length 10 millim.

Hab. Calcutta and Bombay (*Brit. Mus.*). Bor Ghát (*Dixon*). Ceylon (*Green*). Burma; Rangoon (*Fea*), Moulmein (*Fea*).—Philippines (*Stockholm Mus.*). China. Japan (*Lewis*).

Genus **HENRICOHAHNIA.**

Henricohahnia, *Bredd. Deutsche ent. Zeit.* p. 184 (1900).
Forestus, *Dist. A. M. N. H.* (7) xi, p. 251 (1903).

Type, *H. wahnschaffei*, Bredd., a Javan species.

Distribution. Oriental Region.

Body oblong-ovate; head elongate, central lobe prominent and spinously anteriorly produced, postocular portion longer than anteocular; rostrum with the first joint short, about reaching eyes, second joint twice as long as first; antennæ short, setose, first joint moderately incrassate, about as long as postocular portion of head, second and third joints subequal in length, fourth shortest; pronotum transversely constricted before middle, disk more or less bicarinate, posterior lateral angles more or less prominent; scutellum small, the apex prominent; abdomen more or less lobately produced and distinctly centrally sulcated; femora generally granulous or spinous.

A. *Lateral pronotal angles broadly produced, their apices notched or spinous.*

1325. **Henricohahnia typica,** *Dist.* (Forestus) *A. M. N. H.* (7) xi, p. 251 (1903).

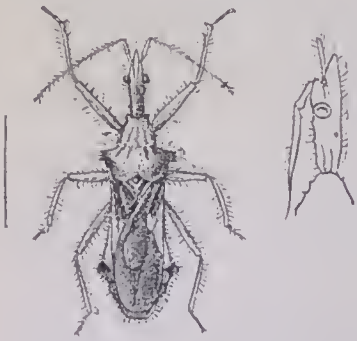

Fig. 247.—*Henricohahnia typica.*

Ochraceous; corium (excluding apical area), membrane, a large spot on fourth and fifth segments of connexivum, base of rostrum, and basal and apical joints of antennæ brownish-ochraceous; a lateral fascia to meso- and metanota, anal appendage (excluding apex), and some minute spots to abdomen piceous. Antennæ longly setose; pronotum with two discal curved and with two other much more obscure carinæ near lateral angles, lateral margins with a series

of short robust spines, lateral angles somewhat broadly produced, their apices subtruncate and armed with three spines, their anterior margins also shortly spinous, their posterior margins roundly and centrally concavely notched; connexivum at fourth segment angulately produced, at fifth segment slightly produced, lateral abdominal margins finely spinous and setose; femora coarsely granulate and setose, anterior tibiæ and femora spined beneath; abdomen beneath centrally sulcate, the sulcation with a fine central ridge.

Length $12\frac{1}{2}$–14; breadth between pronotal angles $3\frac{1}{2}$–4 millim.

Hab. Sikhim; Mungphu (*Atkinson, Brit. Mus.*). Assam; North Khási Hills (*Chennell*).

B. *Lateral pronotal angles spinously produced and recurved.*

1326. **Henricohahnia montana**, *Dist.* (Forestus) *A. M. N. H.* (7) xi, p. 252 (1903).

♂. Piceous-brown: a spot between eyes and central line to postocular portion of head, central sulcation to anterior lobe of pronotum, clavus, a spot on apical margin of corium, spots to connexivum, rostrum (excluding apex), and legs, more or less distinctly, ochraceous; in other specimens some of these pale markings become obliterated; body beneath pale brownish, greyishly pilose, the anal appendages piceous; tibiæ annulated with luteous.

♀. Much paler above, the pale spot to corium occupying the whole apical angle.

Allied to the preceding species (*H. typica*), but differing by the pronotal lateral angles, which are spinous and strongly recurved; the fourth and fifth segments of the connexivum are much less produced; the lateral abdominal margins finely spinous, but much less setose; anterior tibiæ not spined beneath.

Length, ♂ 13, ♀ 16; breadth between pronotal angles, ♂ 4, ♀ $4\frac{3}{4}$ millim.

Hab. Sikhim; Mungphu (*Atkinson, Brit. Mus.*). Assam; Khási Hills (*Chennell*).

1327. **Henricohahnia spinosa**, *Dist.* (Forestus) *A. M. N. H.* (7) xi, p. 252 (1903).

Luteous; a streak on each side of central lobe on anteocular portion of head, a broad central longitudinal fascia on postocular portion, clavus (excluding base), and a large spot on fourth and fifth segments of connexivum piceous; membrane pale cupreous.

Allied to *H. montana* by the spinously recurved lateral pronotal angles, but resembling *H. typica* in the angulately produced fourth and fifth segments of the connexivum and the very longly spined under surfaces of the anterior femora and tibiæ; the upper surfaces of all the femora are also more shortly spinous; the carinæ

to the pronotum are less pronounced than in either of the two preceding species.

Length, ♀, 14; breadth between pronotal angles 4 millim.

Hab. Sikhim (*Atkinson, Brit. Mus.*).

C. *Lateral pronotal angles subprominent, not spinous.*

1328. **Henricohahnia inermis,** *Dist.* (Forestus) *A. M. N. H.* (7) xi, p. 253 (1903).

Pale brownish-ochraceous, sparsely greyishly pilose; connexivum spotted with luteous, membrane cupreous; third joint of antennæ (excluding apex) and base of fourth joint luteous. Pronotum with two discal somewhat indistinct carinæ, much more distinct on anterior lobe, where there are altogether five carinæ, none on posterior lobe near lateral angles, which are only subprominent and not spinous; connexivum produced, but not angulated; legs unarmed, excepting the anterior femora, which have a series of spines beneath.

Length 13; breadth between pronotal angles 3 millim.

Hab. Sikhim (*Coll. Dist.*): Mungphu (*Atkinson, Brit. Mus.*).

1329. **Henricohahnia gallus,** sp. n.

Fuscous or brownish-ochraceous, head, anterior lobe of pronotum, and legs a little darker; antennæ unicolorous; rostrum luteous, its apex and base of second joint beneath black; body above finely pilose, lateral margins of head and pronotum, the antennæ and legs longly pilose, two central carinæ occupying disks of both lobes, the lateral angles not or subprominent, the lateral margins and anterior lobe sparingly spinulose; connexivum slightly produced and distinctly angulated, somewhat minutely spotted with ochraceous near the incisures; membrane bronzy; femora coarsely granulate and spinulose and with the anterior tibiæ spined beneath.

Length 9½ millim.

Hab. Nilgiri Hills; Kotagiri (*Brit. Mus.*).

Subfamily XII. NABIDINÆ.

This subfamily is easily distinguished from the other similar divisions of the Reduviidæ by having the rostrum four-jointed, the basal joint being short and usually stout. Some writers have followed the great authority of Stål in regarding the group as constituting a distinct family, but the general opinion of those who have studied the Order is that the Nabidinæ can only be treated as a subfamily of Reduviidæ. This subfamily is almost universally represented, although comprising only a limited number of genera and species.

Division *PACHYNOMARIA.*

Pachynomina, *Stål, En. Hem.* iii, p. 106 (1873).

This division, representing one of the three subfamilies proposed by Stål, contains but a single genus, which is somewhat widely distributed in what is generally known as the Old World.

The pronotum is without an anterior collar; the head is immersed to the eyes, or, in other words, the eyes touch the anterior margin of the pronotum; the rostrum is short and incrassated; ocelli are absent, and the anterior femora are very strongly incrassated.

Genus **PACHYNOMUS.**

Pachynomus, *Klug, Symb. Phys.* ii (1830); *Lap. Ess. Hem.* p. 81 (1832); *Burm. Handb.* ii, p. 222 (1835); *Stål, En. Hem.* iii, p. 107 (1873).
Subg. Punctius, *Stål, En. Hem.* iii, p. 107 (1873).

Type, *P. picipes*, Klug, a Southern Palæarctic species.

Distribution. South-eastern Palæarctic, Ethiopian, and Oriental Regions.

Rostrum short, incrassated, second joint slightly shorter than third; ocelli absent; first joint of antennæ short; pronotum short, on each side a little emarginate, transversely impressed near base, basal margin before scutellum broadly sinuate; scutellum large; metasternum distinctly longitudinally carinate; anterior femora very strongly incrassated, anterior tibiæ curved, and provided with a minute apical spongy furrow; head immersed, the eyes about touching anterior margin of pronotum.

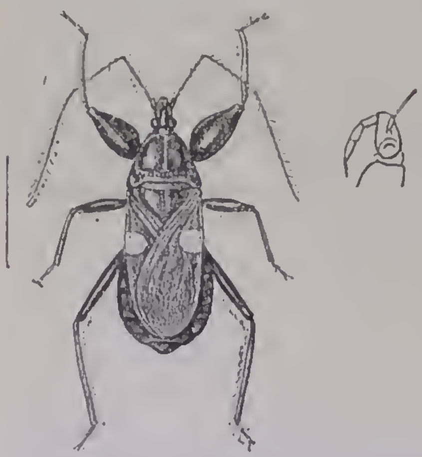

Fig. 248.—*Pachynomus biguttatus.*

1330. **Pachynomus biguttatus,** *Stål, Ann. Soc. Ent. Fr.* 1863, p. 58.

Black; a large rounded apical spot to corium ochraceous; antennæ, tibiæ and tarsi pale piceous; antennæ finely hirsute, basal joint short, incrassate, second and third joints subequal; pronotum smooth, distinctly centrally longitudinally impressed, transverse impression strongly punctate; scutellum smooth, with a distinct, medial, oblong cluster of punctures; corium densely, finely, rugosely punctate; membrane not reaching abdominal apex.

Length 9 to 13 millim.

Hab. Darjeeling (*Coll. Dist.*). North Bengal (*Campbell, Brit. Mus.*); Murshidabad.

1331. **Pachynomus alutaceus,** *Stål* (Punctius), *Öfv. Vet.-Ak. Förh.* 1858, p. 442; *id. En. Hem.* iii, p. 107 (1873).

Black, opaque, densely punctate and granulate; rostrum, anterior tibiæ and tarsi, and the posterior legs piceous; internal angle of the corium obtuse; anterior pronotal lobe with a distinct longitudinal impression, somewhat variously punctured, posterior lobe minutely granulate; scutellum with a longitudinal medial rugosity, posteriorly evanescent, and on each side an obsolete similar rugosity; corium very densely and minutely rugulosely granulate, the veins elevated; abdomen beneath minutely granulate.

Length, ♂, 7 millim.

Hab. Tranquebar.

I have not seen this species.

Division *PROSTEMMARIA.*

Nabina, *Stål, En. Hem.* iii, p. 106 (1873).

Stål's name cannot be employed for this division, as he used *Prostemma* as a synonym for *Nabis*.

As in the previous division, the pronotum is not narrowed and developed anteriorly into a distinct collar; the head is usually, but not invariably, immersed to the eyes, which touch the anterior margin of the pronotum; the rostrum is longer, third joint extending to beyond base of head; ocelli present.

Synopsis of Genera.

A. Head immersed to eyes, which about touch anterior margin of pronotum.
  a. Second joint of antennæ not incrassated.
    a. Second joint of rostrum shorter than third .... PROSTEMMA, p. 392.
    b. Second joint of rostrum longer than third.
      a'. Anterior femora with a dentate ampliation beneath .... ALLŒORHYNCHUS, p. 393.
      b'. Anterior femora densely spinulose beneath, not dentately ampliated .... PSILISTUS, p. 395.
  b. First and second joints of antennæ incrassated .... PHORTICUS, p. 395.
B. Head not immersed to eyes, which are well separated from anterior margin of pronotum .... RULANDUS, p. 396.

Genus PROSTEMMA.

Prostemma, *Lap. Ess. Hem.* p. 15 (1832); *Burm. Handb.* ii, p. 241 (1835); *Stein, Berl. ent. Zeitschr.* i, p. 86 (1857).
Postemma. *L. Dufour, Ann. Soc. Ent. Fr.* 1834, p. 349.
Metastemma, *Amy. & Serv. Hém.* p. 327 (1843); *Fieb. Eur. Hem.* pp. 43 & 157 (1861); *Stål, Hem. Afr.* iii, p. 39 (1865).
Nabis, *Latr.* (part.) *Gen.* iii, p. 127 (1807); *Stål, En. Hem.* iii, p. 107 (1873).
Subg. Pœcilta, *Stål, En. Hem.* iii, p. 108 (1873).
,, Scelotrichia, *Reut. Rev. d'Ent.* ix, p. 291 (1890).

Type, *P. guttula*, Fabr., a Palæarctic species.

Distribution. Palæarctic, Ethiopian, and Oriental Regions.

Body oblong or subelongate, narrowed anteriorly; head before eyes subconically produced, posterior margin of eyes touching anterior margin of pronotum; ocelli present; antennæ finely hirsute, first joint short, not or only just passing apex of head; rostrum longer than head; pronotum longer than broad, or about as long as broad, transversely constricted behind middle, base slightly sinuate: scutellum subequilateral; hemelytra complete or sometimes abbreviated; legs of moderate length, anterior femora moderately incrassated, beneath densely spinulose; anterior tibiæ shorter than the femora, incrassated at apices, the apex obliquely truncate and provided with an apical spongy furrow.

1332. **Prostemma carduelis,** *Dohrn, Stett. ent. Zeit.* xix, p. 229, pl. i, fig. 8 (1858); *Stål* (Pœcilta), *En. Hem.* iii, p. 108 (1873); *Dist. A. M. N. H.* (7) xi, p. 253 (1903).
Prostemma placens, *Walk. Cat. Het.* vii, p. 137 (1873).

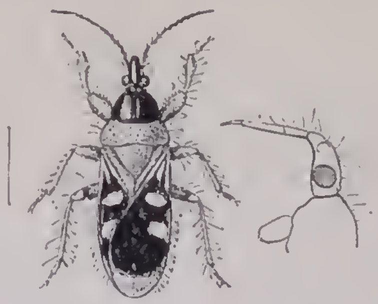

Fig. 249.—*Prostemma carduelis.*

Black; posterior lobe of pronotum, scutellum, clavus, and base of corium pale sanguineous or testaceous; a transverse spot near centre of corium, another near its apex, and apex of membrane greyish-white; apices of anterior femora, and bases and apices of remaining femora, tibiæ, and tarsi ochraceous, the tibiæ sometimes brownish-ochraceous; posterior lobe of pronotum with scattered

coarse punctures; lateral margins of body and the legs longly hirsute; antennæ more shortly hirsute.

Length 8 millim.

Hab. Ceylon (*Green*). Burma; Palon, Bhamo, Pegu (*Fea*).

1333. **Prostemma flavomaculatum**, *Leth. Ann. Mus. Civ. Gen.* 1883, p. 649.

Shining black, head and pronotum olivaceous-black; outer basal margin of clavus, basal and a submedial, transverse, somewhat rounded spot to corium ochraceous; legs luteous, the femora very obsoletely and obscurely annulated with fuscous; apical spot to corium and apex of membrane white; abdomen with the first four segments above and beneath red, sometimes black and concolorous; antennæ brownish-ochraceous; anterior femora incrassated, nearly totally spinulose beneath.

Length 6 millim.

Hab. Burma; Minhla (*Comotto*).

Genus ALLŒORHYNCHUS.

Allœorhynchus, *Fieb. Eur. Hem.* p. 43 (1861); *Stål, Hem. Afr.* iii, p. 40 (1865); *id. En. Hem.* iii, p. 107 (1873).

Type, *A. flavipes*, Fieb., a Palæarctic species.

Distribution. Palæarctic, Ethiopian, Oriental, Australasian, Nearctic, and Neotropical Regions.

Body ovately oblong; head before eyes shortly, somewhat conically produced, posterior margin of eyes touching anterior margin of pronotum, ocelli present; antennæ pilose, first joint short and passing apex of head; rostrum reaching the metasternum, slender, first joint short, incrassate, second and third longest; pronotum constricted behind middle, base truncate; scutellum almost equilateral; legs of moderate length, anterior femora moderately incrassated, beneath medially obtusely, somewhat dentately ampliated, beyond dentation minutely serrate; anterior tibiæ slightly shorter than anterior femora, apex incrassated and provided with a spongy furrow.

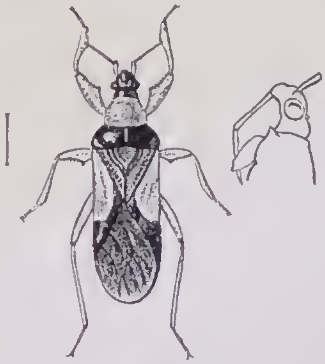

Fig. 250.—*Allœorhynchus vinulus.*

1334. **Allœorhynchus vinulus**, *Stål, Ann. Soc. Ent. Fr.* 1864, p. 59.
Allœorhynchus pulchellus, *Stål, Öfv. Vet.-Ak. Förh.* 1870, p. 675.

Luteous, sparingly pilose; body beneath, with legs and rostrum, stramineous; head, posterior lobe of pronotum, scutellum, clavus, interior margin of corium (broadened at apex), meso- and metasterna, and apical area of abdomen,

the last somewhat arcuately continued on each side to lateral margin, black; membrane and apex of second joint of antennæ fuscous.

Length $5\frac{1}{2}$ to 6 millim.

Hab. Bor Ghát (*Dixon*). Burma; Palon, Mandalay (*Fea*).—Java (*Helsingfors Mus.*).

1335. **Allœorhynchus marginalis,** *Dist. Entomol.* xxxvi, p. 1 (1903).

Head, pronotum, scutellum, and sternum piceous, shining; a lateral spot on each side of scutellum and the corium brownish-piceous; a spot near apical margin of corium and its apical angle ochraceous; membrane pale piceous, its basal angle narrowly ochraceous; connexivum above and beneath ochraceous, spotted with piceous; abdomen beneath castaneous; legs, rostrum, and antennæ ochraceous, apices of femora and bases of tibiæ brownish-ochraceous; second and fourth joints of antennæ about equal in length, third a little longer than first; body above finely pilose; anterior and intermediate femora thickly and finely spinous beneath; anterior tibiæ distinctly clavate at apices.

Length 7 millim.

Hab. Burma; Katha (*Fea*).

1336. **Allœorhynchus nietneri,** *Stein, Berl. ent. Zeitschr.* xxii, p. 382 (1878).

Black, shining, pubescent; pronotum black, shining; scutellum opaquely black; corium and clavus black, at the margin of the last a long narrow flavous spot; membrane fuliginous; coxæ and legs flavous, femora yellow, apices of anterior tibiæ fuscous; abdomen beneath with the base piceous, apex black, shining; abdomen above with the base medially reddish-yellow, apex black, shining, basal margin narrowly flavous, second segment above with a medial coarsely punctate space.

Length $5\frac{1}{2}$ millim.

Hab. Ceylon (*Nietner*).

I have not seen this species.

1337. **Allœorhynchus bengalensis,** sp. n.

Testaceous; head (excluding apex), two broad central longitudinal fasciæ to pronotum, not extending much more than half-way from base, scutellum, three spots to corium—one near base, one at apex, and the third at inner angle,—membrane and meso- and metasterna black; rostrum, coxæ and legs luteous; body finely pilose; antennæ mutilated in the two specimens described; anterior femora strongly incrassated and dentately ampliated beneath.

Length 5 millim.

Hab. Bengal; Ranchi.

Genus PSILISTUS.

Psilistus, *Stål, En. Hem.* iii, p. 107 (1873); *Reut. Rev. d'Ent.* ix, p. 290 (1890).

Type, *P. corallinus*, Stål.
Distribution. Oriental Region.
Allied to *Allœorhynchus*, but the anterior and intermediate femora beneath very thickly spinulose, the anterior femora not dentately ampliated beneath; pronotum medially constricted; anterior tibiæ provided with a small spongy furrow, but the intermediate tibiæ without it, and distinctly curved.

1338. **Psilistus corallinus**, *Stål, En. Hem.* iii, p. 109 (1873).

Coral-red, shining, sparingly setose; scutellum, clavus, and internal area of the corium fuscous—in some specimens these areas are coral-red and concolorous; membrane piceous; antennæ fuscous,

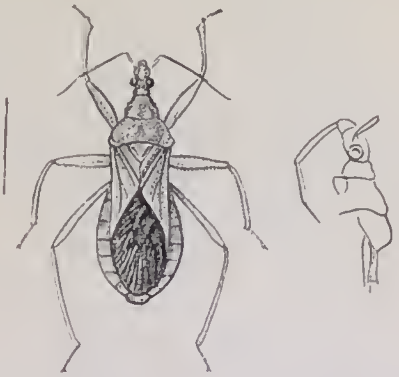

Fig. 251.—*Psilistus corallinus.*

basal joint red and passing apex of head; connexivum ampliated; the serration to the under surfaces of the anterior and intermediate femora black; membrane not quite reaching abdominal apex.
Length $9\frac{1}{2}$ to 11 millim.
Hab. Sikhim. Burma; Karennee (*Fea*). Tenasserim; Plapoo (*Fea*).—Malay Peninsula, Borneo.

Genus PHORTICUS.

Phorticus, *Stål, Bid. till Rio-Jan. Hem.* i, p. 69 (1858); *id. En. Hem.* iii, p. 107 (1873); *Reut. Rev. d'Ent.* ix, p. 290 (1890); *id. Wien. ent. Zeit.* xii, p. 317 (1893).

Type, *P. viduus*, Stål, a Neotropical species.
Distribution. Nearctic, Neotropical, Southern Palæarctic, Ethiopian, and Oriental Regions.

Body small, subelongate; head before eyes cylindrically produced, eyes almost touching anterior margin of pronotum; rostrum long, reaching middle of mesosternum; first joint of antennæ passing apex of head, both first and second joints incrassated; pronotum anteriorly narrowed, medially constricted, near anterior margin obsoletely, obtusely impressed, and provided with an obsolete collar; scutellum triangular, equilateral; legs of moderate but variable length, anterior femora incrassated, anterior tibiæ with their apices incrassated.

1339. **Phorticus cingalensis**, *Dist. Entomol.* xxxvi, p. 2 (1903).

Fig. 252.
Phorticus cingalensis.

Head, scutellum, sternum, and membrane piceous; pronotum and corium dull castaneous; anterior margin of pronotum, a basal spot to clavus and corium, connexivum, posterior margin of prosternum, abdomen, legs and rostrum luteous; antennæ brownish-ochraceous, base and apex of third joint luteous; basal joint of antennæ passing apex of head, first and second joints incrassate; pronotum faintly transversely constricted; membrane slightly passing abdominal apex, its apical margin narrowly fuliginous; body distinctly pilose.

Length $2\frac{2}{3}$ millim.

Hab. Ceylon (*Lewis*).

Genus **RULANDUS**, nov.

Type, *R. phædrus*, Dist.

Distribution. Burma.

Ovate; head tumid between eyes, which are well separated from anterior margin of pronotum, in front of them depressed and subconically produced; antennæ with the first joint slightly incrassated and about reaching apex of head, second joint slender and considerably longer than first; rostrum short and moderately thick, second and third joints subequal in length; pronotum strongly centrally sulcated and deeply medially transversely impressed; scutellum with the apex longly apically produced; corium strongly sinuate near base; legs of moderate length; anterior femora a little incrassated; anterior tibiæ a little shorter than anterior femora.

1340. **Rulandus phædrus**, sp. n.

Pale ochraceous; eyes, posterior lobe of pronotum, posterior discal area of corium, and meso- and metasterna pale purplish-

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ROYAL ALBERT DOCKS, E.

brown; basal joint of antennæ shorter than the head, second joint nearly twice as long as first; anterior lobe of pronotum longitudinally sulcate, posterior lobe centrally, broadly excavate, lateral angles rounded; scutellum with the apex long, laterally posteriorly directed; posterior femora and tibiæ about equal in length; body distinctly finely pilose.

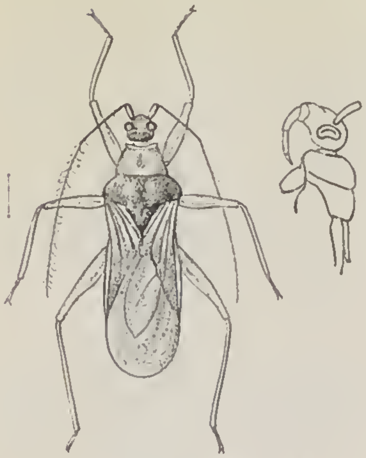

Fig. 253.—*Rulandus phædrus.*

Length 4 millim.

Hab. Burma; Katha, Rangoon (*Fea*).

This species is somewhat variable in coloration, sometimes the head, or again the whole of the pronotum, being pale purplish-brown.

Division *NABIDINARIA.*

Coriscina, *Stål, En. Hem.* iii, p. 106 (1873).

In this division the pronotum is provided with a transverse impression a little behind the anterior margin. thus constituting a distinct collar; the rostrum is long and slender; ocelli distinct, and the head always distinctly exserted, not immersed to eyes, which are well separated from the anterior margin of the pronotum.

This is the best known division, as it contains the genus *Nabis*, which is very widely distributed.

Synopsis of Genera.

A. Anterior coxæ very long.
  a. Anterior coxæ reaching apex of mesosternum; lateral angles of pronotum rounded, not produced .... GORPIS, p. 397.
  b. Anterior coxæ reaching middle of mesosternum; lateral angles of pronotum strongly produced .... DODONÆUS, p. 398.
B. Anterior coxæ of moderate length.
  a. Posterior tibiæ simple, not incrassated .... NABIS, p. 399.
  b. Posterior tibiæ in male globosely clavate near base .... LORICHIUS, p. 402.

Genus GORPIS.

Gorpis, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 377; *id. Hem. Afr.* iii, p. 38 (1865); *id. En. Hem.* iii, p. 110 (1873).

Type, *G. cribraticollis*, Stål.

Distribution. Ceylon.

Body elongate; head elongate, shorter than pronotum, cylin-

drical, more incrassated behind than before eyes; rostrum four-jointed, first joint short, incrassated, second subequal in length to the two apical joints, third about twice as long as fourth joint; antennæ with the first joint longer than head; pronotum medially and apically moderately constricted, base truncate; scutellum triangular, apex subproduced; hemelytra complete, moderately passing abdominal apex; legs long, slender, anterior coxæ very long, extending to the apex of the mesosternum; anterior femora slightly recurved, incrassated, and armed beneath with fine spinules; anterior tibiæ a little shorter than the anterior femora, moderately curved, and obsoletely crenulated beneath near apex.

1341. **Gorpis cribraticollis**, *Stål, Öfv. Vet.-Ak. Förh.* 1859, p. 377.

Very pale luteous; first joint of antennæ, ocelli, outer margin of clavus, inner margin and apex of corium, spots to anterior

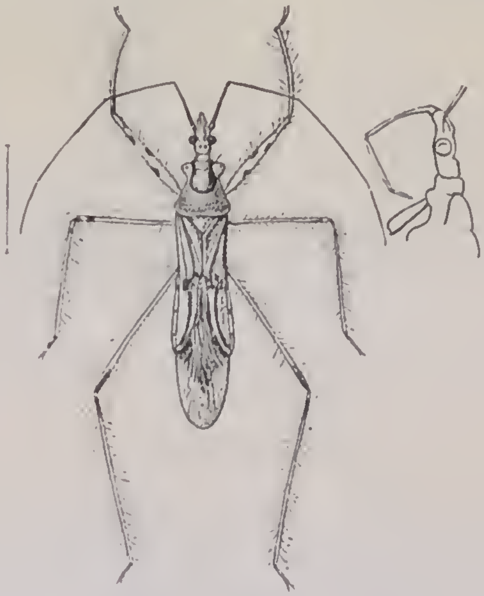

Fig. 254.—*Gorpis cribraticollis.*

femora, apices of posterior femora and bases of tibiæ sanguineous; corium with a transverse discal spot, obscure reddish-brown; pronotum densely granulate, the anterior lobe levigate.

Length 10 to 10½ millim.

Hab. Ceylon; Kandy (*Green*).

Genus **DODONÆUS**, nov.

Type, *D. humeralis*, Dist.

Distribution. Sikhim.

Allied to *Gorpis*, but with the lateral posterior pronotal angles prominently and obtusely angulately produced; antennæ longly pilose; membrane somewhat longly passing the abdominal apex; anterior coxæ extending to near middle of mesosternum.

1342. **Dodonæus humeralis,** sp. n.

Head, antennæ, rostrum, pronotum, membrane, sternum and legs pale ochraceous; corium and abdomen beneath stramineous; scutellum, clavus, a transverse fascia to corium a little beyond middle, and the mesosternum brownish-ochraceous; a narrow subclaval fascia to corium, margins of the transverse fascia to corium, apices of posterior femora, and base of posterior tibiæ rosaceous; first joint of antennæ about as long as head and anterior lobe of pronotum, first and second joints more longly pilose; pronotal lateral angles obtusely angulately produced, their apices a little upwardly recurved, membrane passing abdominal apex for about half their length.

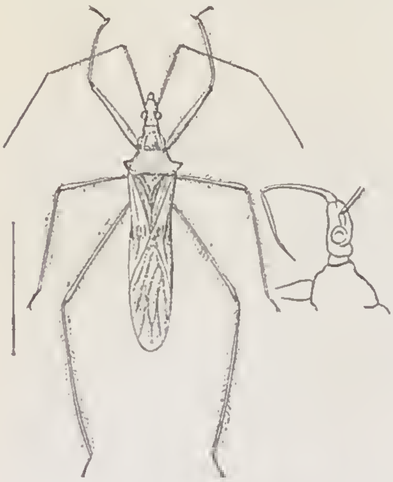

Fig. 255.—*Dodonæus humeralis.*

Length, ♀, 13½ millim.

Hab. Sikhim; Mungphu (*Atkinson, Brit. Mus.*).

Genus **NABIS.**

Nabis, *Latr.* (part.) *Gen.* iii, p. 127 (1807); *Spin. Ess.* p. 105 (1840); *Fieb. Eur. Hem.* pp. 43 & 159 (1861); *Stål, Hem. Afr.* iii, p. 41 (1865); *Reut. Rev. d'Ent.* ix, p. 293 (1890).

Coriscus, *Schrank* (part.), *Faun. Boic.* ii, 1, p. 46 (1801); *Stål, En. Hem.* iii, p. 111 (1873).

Reduviolus, *Kirby, in Rich. Faun. Bor.-Amer.* iv, p. 279; *Kirk. Faun. Hawaiiensis*, iii, p. 153 (1902).

Subg. Nabicula, *Kirby, loc. cit.*

„ Hoplistocelis, Acanthonabis, Lasiomerus, Halonabis, Stenonabis, *Reut. Rev. d'Ent.* ix, p. 294 (1890).

„ Stalia, *Reut. Öfv. Vet.-Ak. Förh.* 1872, No. 6, p. 94.

„ Aptus, *Hahn, Wanz.* i, fig. 24, A–C (1831).

„ Aspilaspis, *Stål, En. Hem.* iii, p. 114 (1873).

Type, *N. apterus*, Fabr., a Palæarctic species.

Distribution. Of almost universal distribution.

Body oblong or subelongate, narrowed anteriorly; head subcylindrical; eyes well separated from anterior margin of pronotum; ocelli placed behind eyes and at about same distance from them as from each other; rostrum long, often extending to or beyond the intermediate coxæ, first joint very short; antennæ very finely pilose, first joint longly passing the apex of the head; pronotum strongly narrowed anteriorly, and near middle transversely impressed; scutellum equilateral; hemelytra sometimes abbreviated; legs long, slender, anterior femora slightly incrassated and becoming more slender towards their apices; anterior tibiæ shorter than the anterior femora.

A. *First joint of antenna subequal in length to head.*

1343. **Nabis capsiformis**, *Germ. in Silb. Rev.* v, p. 132 (1837); *Reut. Öfv. Vet.-Ak. Förh.* 1872, No. 6, p. 88, pl. viii, f. 9.
Nabis angustus, *Spin. Ess.* p. 107 (1840).
Nabis longipennis, *Costa, Atti Inst. Sc. Nat. Napol.* 1848, p. 250; *Fieb. Eur. Hem.* p. 161 (1861).
Nabis caffra, *Stål, Öfv. Vet.-Ak. Förh.* 1855, p. 39; *id. Hem. Afr.* iii, p. 41 (1865).

Elongate, greyish-testaceous; an oblong spot between eyes, and sometimes a lateral spot behind eyes, a central fascia to pronotum (sometimes abbreviated on posterior area), a central fascia (posteriorly abbreviated to scutellum), disks of meso- and metasterna (these shadings sometimes absent), lateral fasciæ, and sometimes an obsolete medial fascia to abdomen beneath, dull piceous; two punctate spots to corium (one behind middle, the other apical), a punctate spot near apex of membrane, and a more or less obsolete lateral fascia to prosternum fuscous; head a little shorter than pronotum, and behind eyes distinctly thickened; first joint of antennæ subequal in length to head; pronotum longer than its width at base; hemelytra much longer than abdomen; femora minutely and obscurely speckled with pale fuscous.

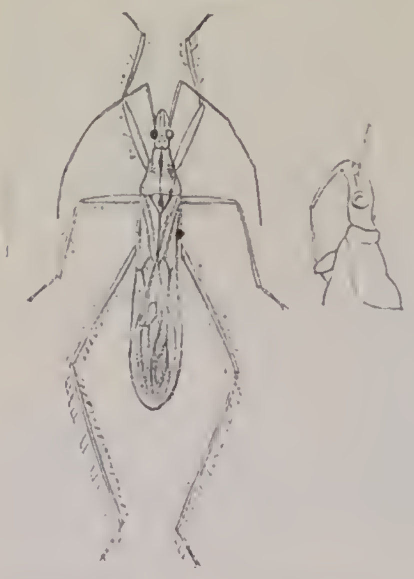

Fig. 256.—*Nabis capsiformis.*

Length 8 to 9 millim.

Hab. Bombay and Bor Ghát (*Dixon*). Burma; Rangoon, Bhamo (*Fea*).—Also found generally in the Palæarctic, Nearctic, and Ethiopian Regions.

With the Bombay specimens before me, there can be no doubt that Spinola's *N. angustus* is a synonym of this species.

1344. **Nabis tibialis**, sp. n.

Shining piceous-brown; a lateral marginal fascia extending from anterior margin of eyes to base of head, two oblique discal fasciæ and the posterior margin to pronotum, two medial marginal spots to scutellum, claval suture, veins, lateral margin and a subapical spot to corium, lateral margins of abdomen, legs, rostrum, and antennæ luteous; apex of second joint of antennæ, extreme base of second joint of rostrum, spots to abdominal lateral margins,

and apices of femora and tibiæ black; obscure shadings to anterior and intermediate femora, and numerous annulations to tibiæ fuscous; membrane greyish, the venation pale fuscous; first joint of antennæ about as long as head, almost equal in length to second joint; posterior lobe of pronotum obscurely granulate; lateral posterior angles of pronotum subnodulose.

Length 7 millim.

Hab. Ceylon; Peradeniya (*Green*).

1345. **Nabis funebris**, sp. n.

Piceous-black; head, antennæ, rostrum, pronotum, prosternum, two obscure discal spots to scutellum, margins of abdomen, and legs ochraceous; annulations to first and second joints of antennæ, an obscure central fascia to head, a central and two oblique fasciæ on each lateral area of pronotum, spots to connexivum above and beneath, mottlings and apices to femora, and numerous annulations to tibiæ fuscous or piceous-brown; first joint of antennæ about as long as head; pronotum with collar well defined and the transverse medial impression profound; abdomen a little dilated on each side beyond middle.

Length $7\frac{1}{2}$ millim.

Hab. Sikhim. Burma; Karennee.

B. *First joint of antennæ distinctly longer than head.*

1346. **Nabis nigrescens**, sp. n.

Greyish-testaceous; a central fascia continued through head, pronotum and scutellum, head beneath, meso- and metasterna, lateral abdominal areas and posterior margins of abdominal segments, apices of femora broadly, apices of tibiæ narrowly, apices of first and second and the whole of succeeding joints of antennæ, membranal veins, and obscure intra-venal lines to corium dull piceous-black; first joint of antennæ distinctly longer than head; veins to corium distinctly elevated; pronotal collar well developed, its anterior and posterior margins carinate, lateral posterior angles subnodulose.

Length $9\frac{1}{2}$ millim.

Hab. Bor Ghát (*Dixon*).

1347. **Nabis brevilineatus**, *Scott, A. M. N. H.* (4) xiv, p. 40 (1874).

Var. Yellowish-brown; posterior lobe of the pronotum and the hemelytra dull in hue and opaque; anterior lobe of pronotum with transverse reddish striæ, posterior lobe thickly granulate; a central spot to scutellum, basal halves of claval and subclaval areas, a linear spot near apex of corium, discal shadings to membrane, two broad annulations to anterior femora (one near base, the other near apex), two annulations on apical areas of intermediate and posterior femora, apices of first and second joints,

and a small medial spot to first joint of antennæ fuscous; anterior femora very strongly incrassated and minutely serrate beneath; first joint of antennæ longer than head, subequal in length to second joint; abdomen and corium concavely sinuate at middle, the first broadened and projecting beyond middle.

Length 9 millim.

Hab. Burma (*coll. Dist.*).—Japan (*Lewis*).

The above colour-variety has been compared with Scott's type.

Species not seen by writer.

1348. **Nabis indicus**, *Stål* (Aspilaspis), *En. Hem.* iii, p. 114 (1873).

Stål compares this species with the Palæarctic *N. viridulus*, Spin.* "Allied to *N. viridulus*, which it closely resembles, but differs by its larger and more slender structure; head, laterally seen, more slender; posterior lobe of pronotum narrower; corium without fuscous marginal spot, but before middle at clavus smally nebulously infuscated; two vittæ, the exterior short; membranal veins concolorous."

Length 8 millim.

Hab. "North India" (*Stockholm Mus.*).

Genus **LORICHIUS**, nov.

Type, *L. umbonatus*, Dist.

Distribution. Tenasserim.

Body slender, elongate; head shorter than pronotum, subcylindrical in front of eyes, tumid between eyes, which are well separated from anterior margin of pronotum; first joint of antennæ considerably longer than head; rostrum with the second and third joints subequal in length; pronotum with a distinct collar, and transversely impressed before middle; scutellum with the apex distinctly produced; hemelytra longer than abdomen; legs long, slender, pilose, posterior tibiæ in male globosely clavate near base; anterior tibiæ and femora subequal in length.

1349. **Lorichius umbonatus**, sp. n.

Head and anterior lobe of pronotum shining chocolate-brown; posterior pronotal lobe, corium, sternum, and abdomen beneath piceous; a central line to posterior pronotal lobe, scutellum, lateral margins of the hemelytra, and a spot near the inner angle

* *N. viridulus*, Spin. Ess. p. 107 (1840). "Body and legs pale green without spots; corium of same colour, a large orange-yellow spot at the internal area of the corium; membrane hyaline, veins white; the green colour is sometimes pale yellow on the antennæ, tibiæ, tarsi, upper surface of head, and prothorax, but the hemelytra always exhibit the green coloration."

Widely distributed through Central Europe to Turkestan.

of each; rostrum and legs luteous; a piceous spot on each side of scutellum; globosity at base of posterior tibiæ in male black, its

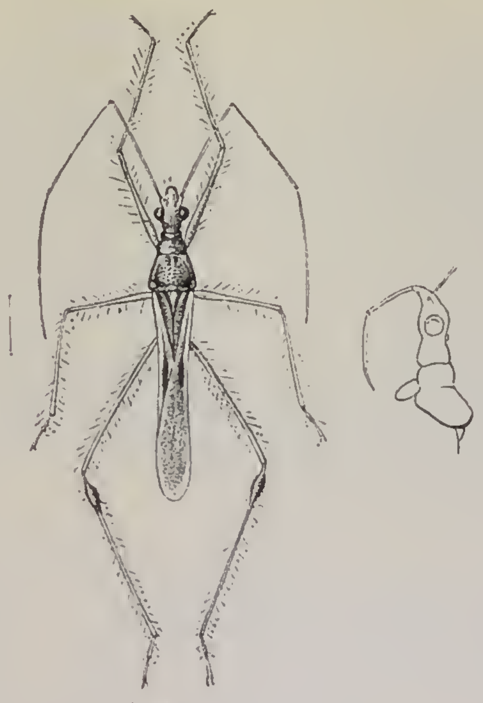

Fig. 257.—*Lorichius umbonatus.*

base and the apex of posterior femora reddish; antennæ infuscated, the first joint luteous; posterior lobe of pronotum granulose; legs somewhat longly pilose.

Length 6 millim.

Hab. Ceylon; Peradeniya (*Green*). Tenasserim: Myitta (*Doherty*).

Family SALDIDÆ.

Body oval, moderately convex; head short and broad, the eyes very large and prominent; ocelli present and situate between the eyes; rostrum three-jointed, bent at the base, so that in repose it does not lie against the under surface of the head.

The insects composing this family are mostly semi-aquatic in habit, frequenting damp places, wet moss, sides of streams, &c.; some have been watched and observed to be capable of living for a time under water; others again are found on heaths and away from moisture altogether.

No Indian species of Saldidæ have been previously recorded. We now enumerate three; an altogether insufficient number, and one that must necessarily be largely augmented when more attention is paid to these insects by collectors.

Synopsis of Subfamilies.

A. Two ocelli placed between the eyes .... *Saldinæ.*
B. Three ocelli placed between the eyes .... *Leptopinæ.*

Subfamily I. SALDINÆ.

The extensive genus *Salda* practically composes this subfamily. Another Nearctic genus, *Saldoida*, has been recently founded, and we now describe a third from Ceylon.

Synopsis of Genera.

A. Pronotum without anterior collar, its basal margin concavely sinuate: scutellum large.. SALDA, p. 404.
B. Pronotum with a double anterior collar, its basal margin straightly truncate: scutellum small.............................. VALLERIOLA, p. 405.

Genus SALDA.

Salda, *Fabr.* (part.) *Syst. Rhyng.* p. 113 (1803); *Burm. Handb.* ii, p. 215 (1835); *Amy. & Serv. Hém.* p. 404 (1843); *Fieb. Eur. Hem.* pp. 40 & 144 (1861).
Acanthia (part.), *Fabr. Syst. Ent.* p. 693 (1775).
Sciodopterus, *Amy. & Serv. Hém.* p. 404 (1843).
Subg. Chiloxanthus & Calacanthia, *Reut. Act. Soc. Sc. Fenn.* xxi, 2, pp. 4, 5 (1895).
Subg. Chartoscirta, *Stål, Öfv. Vet.-Ak. Förh.* 1868, p. 393.

Type, *S. littoralis*, Linn., found in both the Palæarctic and Nearctic Regions.

Distribution. Probably universally distributed.

Broad, ovate; head short and broad, eyes large and prominent, with two ocelli placed between them; antennæ slender, somewhat thickened on apical area; rostrum with three joints; pronotum with the lateral margins carinate, the basal margin concavely sinuate; scutellum large, somewhat foveately depressed at base; corium with the lateral margins moderately convexly rounded and deflected; membrane with four long subparallel cells; legs of moderate length, tarsi with three joints.

1350. **Salda dixoni**, sp. n.

Olivaceous-black, opaque, finely ochraceously pilose; lateral margins of corium, excluding base, luteous, widened at apical angle; membrane very pale fuliginous, the veins fuscous; basal joint of antennæ, rostrum, and legs luteous; eyes brownish; third and fourth joints of antennæ subequal in length, second longest, first shortest; pronotum with a very obscure transverse medial impression, in front of which are two very obscure transverse callosities, basal margin concavely sinuate; scutellum discally depressed; the pilosity on the corium a little more pronounced.

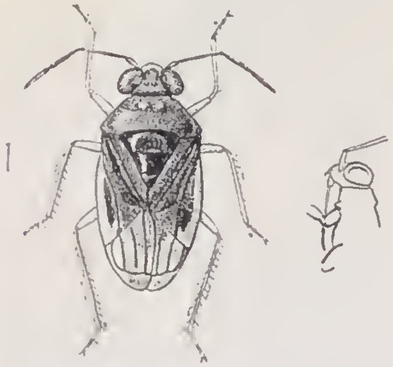

Fig. 258.—*Salda dixoni.*

Length 3 millim.

Hab. Bor Ghát (*Dixon*). Burma; Rangoon (*Fea*).—A single specimen was sent to me by Mr. R. M. Dixon, and I have seen a second example collected by Sign. Fea at Rangoon.

Genus VALLERIOLA, nov.

Type, *V. greeni*, Dist.

Distribution. Ceylon.

Elongate, oblong; head short and very broad, eyes large, extending along the whole lateral margins of the head and a little upwardly recurved; ocelli two; antennæ very long and slender, basal joint short, incrassate, second joint considerably longer than head and incrassate at apex, third joint at least twice as long as second; rostrum reaching the anterior coxæ; pronotum with a double anterior collar, transversely constricted near middle, thence widened to posterior angles which are obtusely rounded, posterior margin straightly truncate; scutellum somewhat small, subtriangular, centrally foveate; hemelytra long, subparallel, a little narrowed

posteriorly, corium longer than abdomen, membrane with four long subparallel cells: legs slender, femora distinctly incrassate at base.

Fig. 259.—*Valleriola greeni.*

1351. **Valleriola greeni**, sp. n.

Black, opaque; basal joint of antennæ, posterior lateral margins, basal margin, and a central longitudinal line on posterior area of pronotum, apex of scutellum, a basal streak to clavus and apices of claval suture, lateral margins, two central and two subapical spots to corium, femora, and posterior segmental margins luteous; longitudinal streaks and apices to femora piceous.

Length $5\frac{1}{2}$ millim.

Hab. Ceylon; Peradeniya (*Green*).

Caught running about on sides of a vessel containing stagnant water. Very active; uses its wings readily (*E. E. Green*).

Subfamily II. LEPTOPINÆ.

As already pointed out, the three ocelli between the eyes sufficiently separate this subfamily from the Saldinæ. The Leptopinæ are few in number, principally distributed in the Palæarctic Region, and represented in Madagascar. Being small, obscure, and little collected insects, nothing can be definitely stated as to their distribution.

Genus **LEOTICHIUS**, nov.

Type, *L. glaucopis*, Dist.

Distribution. Burma.

Elongately subovate; head somewhat short and broad, eyes very large, dilated, convexly rounded and upwardly reflexed; ocelli three; antennæ with the first and second joints short, incrassate, subspinous, third and fourth joints slender and subequal, fifth a little thickened; pronotum strongly anteriorly constricted, widened on each side behind the constriction, the anterior margin a little convex, the lateral angles prominent and rounded, their apices obtusely subacutely recurved, posterior lateral margins oblique and a little concave, basal margin short, transverse; scutellum small, its apex strongly tuberculously raised; corium with the lateral margin sinuately waved, its apical margin sinuate, membrane passing the

abdominal apex; legs somewhat long and spinulose, the posterior tibiæ strongly curved; tarsi long, the basal joint about as long as remaining joints together.

1352. **Leotichius glaucopis**, sp. n.

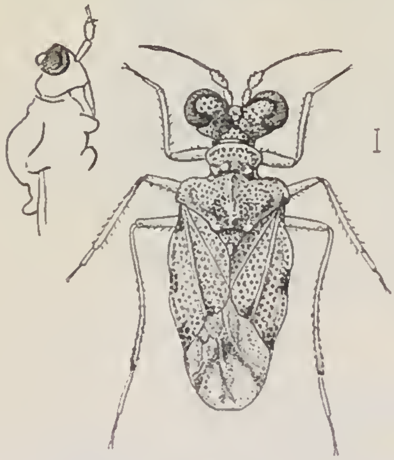

Fig. 260.—*Leotichius glaucopis.*

Greyish-brown, thickly very coarsely punctate; two spots at base of pronotum, extreme base and apex of tubercle to scutellum, three spots on lateral margin and a more obscure spot on apical margin of corium piceous; membrane pale fuliginous, partially suffused with fuscous; legs pale luteous, apices of femora, tibiæ, and tarsi infuscated; pronotal collar transversely striate, area of anterior constriction largely transversely tuberculate, posterior area with a strong central longitudinal ridge, the angles to posterior margin a little prominent and glabrous; base of apical joint of antennæ pale luteous.

Length $2\frac{1}{2}$ millim.

Hab. Burma; Rangoon.

Family CERATOCOMBIDÆ.

Ceratocombidæ, *Fieber, Eur. Hem.* p. 25 (1861); *Reut. Act. Soc. Sc. Fenn.* xix, no. 6, p. 3 (1891).

Ocelli placed at the anterior margin of the eyes; rostrum three-jointed; antennæ four-jointed, two basal joints very short and incrassate, first exceedingly short, second distinctly longer than the first, the two apical joints long, slender, setiform, longly pilose; head, pronotum, sternum, and hemelytra variable in structure; tarsi three-jointed.

A family comprising some very small or minute species found in moss, dead leaves, and similar surroundings.

Subfamily CERATOCOMBINÆ.

Ceratocombina, *Reut. Act. Soc. Sc. Fenn.* xix, no. 6, p. 3 (1891).

Reuter has divided the Ceratocombidæ into two subfamilies, *Ceratocombinæ* and *Schizopterinæ*, the first of which may be easily distinguished, apart from other characters, by the long porrect head, which in the *Schizopterinæ* is shorter, transverse, and strongly deflected.

Genus **CRESCENTIUS**, nov.

Type, *C. principatus*, Dist.

Distribution. Burma.

This genus is founded on a single specimen collected by Sign. Fea in Burma. It was drawn very carefully under the microscope by our artist, Mr. H. Knight, and the figure has been critically examined and approved by myself. By an unfortunate accident the minute specimen was destroyed under subsequent examination, and the generic and specific characters are therefore taken only from the figure, and are thus somewhat superficial.

Body elongate; head long, porrect, with a distinct circular indentation or foveation between the eyes, which are placed near the anterior margin of the pronotum, lateral margins longly pilose; rostrum at least reaching the intermediate coxæ; antennæ with the first and second joints minute, incrassate, second distinctly longer than first, third and fourth longly pilose, third somewhat thickened, with the apex a little incrassate and giving the appearance of another joint; hemelytra fully developed, membrane distinct, venation as portrayed on figure; apical segment of abdomen longly pilose; anterior tibiæ longly pilose; intermediate and posterior legs absent in the specimen figured.

1353. **Crescentius principatus**, sp. n.

Fig. 261.
Crescentius principatus.

Dark and somewhat shining fuscous brown; first, second and third joints of antennæ ochraceous, with the pile fuscous, fourth joint dark fuscous; anterior legs stramineous. tibiæ darkly pilose or spinulose; pronotum with the margins distinctly and broadly defined, the anterior margin resembling a pronotal collar, disk with a central longitudinal impression; body above very thickly, finely, but obscurely tomentose.

Length $2\frac{1}{3}$ millim.

Hab. Burma; Karennee (*Fea*).

Family CIMICIDÆ.

Ocelli absent; elytra short and broad, the broad abdomen being uncovered; head short and broad; rostrum contained in a groove beneath the head; tarsi three-jointed.

Genus CIMEX.

Cimex, sect. *a*, *Linn. Syst. Nat.* ed. 10, i, p. 441 (1758); *Latr. Gen.* iii, p. 136 (1807); *Stål, En. Hem.* iii, p. 103 (1873).
Acanthia, *Fabr. Syst. Rhyng.* p. 112 (1803).
Klinophilos, *Kirk. Entomologist*, 1899, p. 219.

Type, *C. lectularius*, Linn.
Distribution. Universal.

Head longer than the medial part of the pronotum, considerably exserted; apical joints of antennæ slender; pronotum anteriorly strongly sinuate, anterior angles considerably produced; elytra rudimentary, transverse, broader than long; legs slender, femora moderately incrassate, tibiæ straight, anterior tibiæ three times or more than twice as long as the tarsi, posterior tibiæ three times as long as tarsi; body short, pilose, lateral margins longly setose.

1354. **Cimex lectularius**, *Linn. Syst. Nat.* ed. 10, i, p. 441 (1758); *Stål, En. Hem.* iii, p. 104 (1873); *Saund. Hem. Het. Brit. Isld.* p. 186 (1892).
Acanthia lectularia, *Fieb. Eur. Hem.* p. 135 (1861).
Klinophilos lectularius, *Kirk. Entomologist*, 1899, p. 220.

Reddish-brown or brownish-yellow, strongly and thickly punctate, sparingly finely pilose; head with the eyes prominent; antennæ with the first and second joints stoutest, third and fourth very slender and finely pilose, first joint short, second and third subequal in length; pronotum with the anterior margin deeply sinuate, its lateral margins dilated, rounded, and outwardly longly pilose, the disk moderately glabrous and tumid; scutellum very short and broad; elytra transverse, short, strongly punctate, about twice as wide as long; abdomen finely punctate, connexivum a little reflexed; legs ochraceous.

Length 5 to 6 millim.

Hab. Ceylon (*Green*), and throughout British India. — This insect is recorded from all parts of the world, and is everywhere a disgusting and hated human parasite.

"It was known to Aristotle as occurring in the Mediterranean Region in his time; but I believe the earliest recorded date of its having been observed in England is 1503." (*W. F. Kirby.*)

1355. **Cimex macrocephalus,** *Fieb.* (Acanthia) *Eur. Hem.* p. 135, note (1861).

Allied to *C. lectularius*, but with the pronotum broader and

Fig. 262.—*Cimex macrocephalus.*

less narrowed posteriorly, its disk more broadly tumid; abdomen a little more robust, &c.

Length 5 to 6 millim.

Hab. Burma; Bhamo (*Fea*).

Family CAPSIDÆ.

This is an extremely large family, of which, apart from the Palæarctic and Nearctic species, and a considerable number of genera and species from Central America, our knowledge is still fragmentary.

The Capsidæ comprise insects with a more or less soft integument, but with most variable structural characters. The head is rarely provided with ocelli; the antennæ are four-jointed, the first joint usually the stoutest, and the third and fourth the most slender, but this is not an invariable rule; the rostrum is four-jointed, and one of the best and most distinctive characters is found in the presence of a cuneus, or more or less triangular semi-detached piece at the apex of the corium.

It has been generally supposed that the Capsidæ subsist exclusively on the juices of plants, trees, and fruits, but this is not a universal habit. Records have long existed as to the predatory habits of some species on other insects, and this information has been well garnered and published by Reuter (Ent. Month. Mag. 1903, p. 121). Another characteristic of the family is the wonderful simulation by many species of insects of other orders, especially of ants.

Of the Palæarctic Capsidæ we know most, and of those belonging to the European section our knowledge is the most complete, and this largely owing to the work of Reuter. The Nearctic representatives are also fairly well worked, and the present writer has described a large number of species from Central America. Of the Ethiopian Capsidæ very little is known; while, for the Oriental Region, the following pages contain by far the largest enumeration of genera and species. Some Australasian species have recently been described, but the Capsidæ of this great region are practically unrecorded.

One of the most considerable aids to the study of the whole family was afforded by the late E. T. Atkinson, who, in 1890 (Journ. Asiat. Soc. Beng. lviii, pt. 2, Suppl.), published a catalogue of the described species and genera to the year 1889. Considering that this work was prepared and published in Calcutta, it is somewhat remarkable how comparatively few are the omissions and errors which it contains, and it remains a witness to the loss which the study of Rhynchota sustained in the premature death of its compiler.

The classification of the family is largely dependent on the work and propositions of Reuter, who has made the Capsidæ a special study, and I have endeavoured to follow his arrangement as far as my own views will allow; but at present the classification of the family is more reflective of personal opinion, and contrived for the purposes of entomological arrangement, than exhibiting an

evolutionary or philosophical conception. The Capsidæ are a very difficult group to study, their affinities are of the most complicated description, and for the present we must be satisfied with a somewhat artificial or cabinet arrangement. Where I have diverged principally from the excellent work of Reuter, is in the taxonomical value ascribed to a structural character of the head. In my opinion a longitudinal incision or sulcation on the upper surface of this region is a primary distinction, and affords a character for the separation of a distinct subfamily. The remaining genera fall into two other subfamilies by the presence or absence of ocelli. This arrangement naturally exhibits in the first two subfamilies, *Mirinæ* and *Capsinæ*, some considerable superficial resemblance between certain genera belonging to the two groups, as, for example, the genera *Megacœlum* (Mirinæ) and *Calocoris* (Capsinæ); but this is only what is more or less seen in any large divisions which have become necessary for the classification of other animals, though it constitutes the greatest divergence between the classification pursued here and elsewhere.

As regards the divisions in each subfamily no fixed rule exists, either in proposition or sequence. Those of Reuter are generally accepted, but at least their sequence is not followed by Uhler, and they are altogether unused by Saunders. Their value, however, cannot be overestimated as factors in generic discrimination, if their structural differences are not appraised at too high a value; they are but means to an end, and this at present is all we can expect.

It is necessary here to make a few remarks as to the priority of the names given to these divisions, a question which seems likely to reduce the whole arrangement to chaos. By some recent writers it is insisted that the name of a division must necessarily be founded on that of the earliest described genus which it contains, and this, if feasible, would doubtless constitute a good rule. But it is at once evident that such a procedure could result in no finality, and must obscure any reasonable classification by constant and useless changes. For instance, a writer forms a new division, and gives it a name founded on the earliest described genus which it is then known to contain. Another worker is subsequently able to include another and older genus in the group, and therefore a change of divisional name is, on this argument, necessitated, to be again and again repeated as other and earlier described genera may be found to fall into the divisional group. Kirkaldy, in his contribution to the 'Fauna Hawaiiensis,' has shown by his almost universal change of nomenclature what this process may produce, and these remarks are intended as our vindication for not recognizing the same. A similar argument has been used to even alter the family name Capsidæ to Miridæ, because the genus *Miris* was earlier described than *Capsus*! In such a course what entomological name would stand? In Rhopalocera, Lycænidæ must become a deposed term, and in the Hymenoptera, as Col. Bingham informs me, the family

name Pompilidæ must disappear, as it is founded on *Pompilius* (1798) and contains a genus *Ceropales* (1796). These are only examples!

Synopsis of Subfamilies.

A. Head longitudinally impressed or sulcated, or anteriorly excavated .... *Mirinæ.*
B. Head entire, neither sulcate nor excavated.
  a. Head without, or practically without, ocelli .. *Capsinæ.*
  b. Head provided with distinct ocelli.......... *Isometopinæ.*

Subfamily I. MIRINÆ.

Mirides, *Amy. & Serv. Hém.* p. 277 (1843).
Myridina, *Berg, Hem. Argent.* p. 117 (1879).
Capsinæ, Div. Miraria, *Dist. Biol. Centr.-Amer., Rhynch.* i, p. 235 (1883).
Miraria, *Reut. Act. Soc. Sc. Fenn.* xiii, p. 565 (1884).

This subfamily is universally distributed, and, as in the Capsidæ generally, comprises insects of most diverse facies.

Division *HERDONIARIA.*

Herdoniaria, *Dist. A. M. N. H.* (7) xiii, p. 103 (1904).
Pilophoraria (part.), *Reuter, Act. Soc. Sc. Fenn.* xiii, p. 566 (1884).

Allied to the *Myrmecoraria*, Reut.

Cuneus always discernible; head prominent, sometimes very large, always with a distinct longitudinal impression between the eyes; pronotum transversely constricted, the anterior area or lobe somewhat broad and long, but never broader, and generally narrower, than the posterior area; second joint of the antennæ either very strongly or slightly apically incrassated; scutellum sometimes spined.

The Nearctic and Neotropical genus *Xenetus*, Dist., I take as typical of this division, and I also include the genera *Herdonius*, Stål, *Zacinthus*, Dist., *Zosippus*, Dist., *Minytus*, Dist., *Saturniomiris*, Kirk., *Erotocoris*, Dougl. & Scott, *Systellonotus*, Fieb., and apparently *Chrysorrhanis*, Kirk.*

Synopsis of Genera.

A. Eyes well separated from anterior margin of pronotum.
  a. Apex of second joint of antennæ incrassate; lateral margins of pronotum concavely sinuate; hemelytra about twice as long as head and pronotum together .... ISABELLINA, p. 415.

* Some of these genera are claimed by Bergroth (Wien. ent. Zeit. xvii, p. 35, 1898) as belonging to Reuter's division Pilophoraria, to which they have a superficial resemblance, but are separable by the longitudinal sulcation to the head.

b. Apex of second joint of antennæ not incrassate; lateral margins of pronotum nearly straight, not sinuate; hemelytra about three times as long as head and pronotum together .... ONOMAUS, p. 416.
B. Eyes touching or almost touching anterior margin of pronotum.
a. Legs and antennæ of moderate size and length.
a. Pronotum moderately constricted; scutellum longitudinally sulcate .... CALLICRATIDES, [p. 417.
b. Pronotum strongly constricted; scutellum foveate .... HARPEDONA, p. 418.
b. Legs and antennæ very long.
a. First joint of antennæ as long as head and pronotum together; rostrum considerably passing posterior coxæ; pronotum coarsely punctate or subrugulose. MYSTILUS, p. 420.
b. First joint of antennæ as long as head, pronotum, and scutellum together; rostrum reaching intermediate coxæ; pronotum moderately punctate .... MECISTOSCELIS, [p. 421.
c. Antennæ with the first joint strongly ampliately incrassate .... CLAPMARIUS, p. 419.

Genus ISABELLINA.

Isabel, *Kirk. J. Bomb. N. H. Soc.* xiv, p. 58 (1902).

Type, *I. ravana*, Kirby.
Distribution. Ceylon.

Head triangular, subhorizontal, with a central narrow longitudinal impressed line or sulcation, eyes well separated from anterior margin of pronotum; rostrum reaching apex of posterior coxæ; antennæ moderately long and slender, second joint slightly more than twice as long as first and distinctly thickened at apical area, basal joint slightly thickened, eyes distinctly separated from anterior margin of pronotum; pronotum with the basal at least twice as broad as anterior margin, with a central longitudinal sulcation, and two transverse impressions, one immediately behind anterior margin, the other before middle, lateral margins concavely sinuate, posterior angles subspinously produced, disk transversely rugosely striate; scutellum moderately tumid; hemelytra subhyaline; legs of moderate length, posterior femora moderately incrassated; tibiæ finely setose.

Kirkaldy placed this genus in the *Capsaria*. He had, by the omission in his description, evidently overlooked the central longitudinal incision to the head.

1356. **Isabellina ravana,** *Kirby* (Capsus), *J. Linn. Soc., Zool.* xxiv, p. 106, pl. iv, f. 10 (1891); *Kirk.* (Isabel) *J. Bomb. N. H. Soc.* xiv, p. 58, pl. A, f. 9, pl. B, f. 7 (1902).

Very pale testaceous, more or less mottled and speckled with

reddish; head and pronotum with longitudinal reddish or brownish stripes; pronotum with the posterior lobe thickly transversely striate; scutellum brownish, with three pale longitudinal lines, one central, the others on lateral margins; hemelytra pale subhyaline, the clavus, subclaval area, and lateral margins ochraceous; cuneus and veins to membrane reddish; antennæ with the first and second joints ochraceous with fuscous speckles, second joint with apex reddish, remaining joints fuscous, third luteous at base; legs more or less speckled with dull reddish, especially on posterior femora.

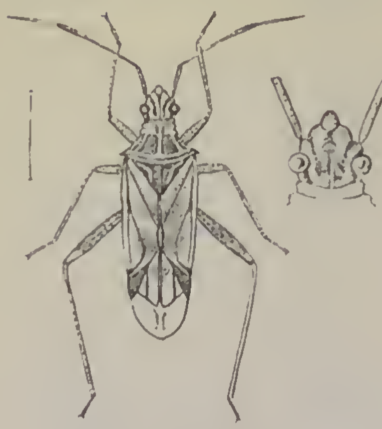

Fig. 263.—*Isabellina ravana.*

Length 7 to 8 millim.

Hab. Ceylon; Pundaluoya (*Green*). Burma; Karennee.

Genus ONOMAUS, nov.

Type, *O. pompeus*, Dist.

Distribution. Assam, Burma.

Subelongate; head moderately large and tumid above, strongly perpendicularly deflected in front of antennæ, distinctly centrally sulcated, eyes well separated from anterior margin of the pronotum; antennæ a little shorter than the body, first joint a little longer than head and anterior area of pronotum together, second joint longest, slightly longer than third; rostrum reaching posterior coxæ, first joint about as long as head; pronotum subtriangular, narrowed anteriorly, with a very narrow anterior collar and somewhat obscurely constricted at about one-third from anterior margin, posterior margin upwardly curved at lateral angles, which are subprominent; scutellum tumid; hemelytra with the lateral margins a little sinuate; corium with cuneus about as long as abdomen; membrane with an elongate, basal, subquadrate cell; legs long, tibiæ longer than femora, posterior tibiæ half as long again as femora; cuneus longer than broad.

1357. **Onomaus pompeus**, sp. n.

Head ochraceous, its apex, basal margin, central sulcation, and the antennæ piceous, basal half of third joint of antennæ luteous; pronotum dark chocolate-brown, the narrow anterior collar, anterior area, and a central longitudinal line to posterior area luteous, a central piceous spot on anterior luteous area; scutellum pale virescent, its basal and lateral margins, central line and apex piceous;

corium and cuneus pale luteous; clavus, a transverse fascia beyond middle, apical margin and apical area of cuneus chocolate-brown; membrane pale ochraceous, its apex broadly fuscous, the venation piceous; sternum piceous; abdomen beneath luteous, its lateral margins and transverse segmental fasciæ pale sanguineous; legs luteous, apices of anterior and intermediate femora, two very broad annulations to posterior femora, and bases of tibiæ pale sanguineous; apices of anterior and intermediate tibiæ, subbasal annulation to posterior tibiæ, and apices of tarsi piceous.

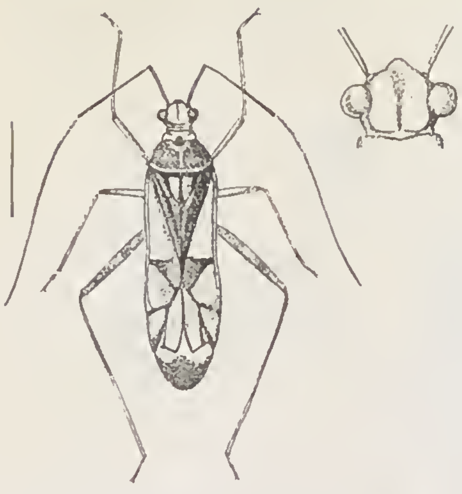

Fig. 264.—*Onomaus pompeus.*

Length 10 millim.

Hab. Assam; Nága Hills (*Doherty*). Burma (*Coll. Dist.*).

Genus **CALLICRATIDES**, nov.

Type, *C. rama*, Kirby.

Distribution. Ceylon.

Body oblong; head with eyes much broader than anterior margin of pronotum, disk between eyes with a flat shield-like process, which extends to the antenniferous tubercles, but does not quite reach base, distinctly longitudinally impressed or finely sulcate, apex porrectly deflected in front of this process; antennæ inserted in front of the eyes, basal joint incrassated, about as long as head, moderately curved outwardly, second joint longest, moderately thickened, about four times as long as the first; rostrum not quite reaching the posterior coxæ; pronotum about as long as broad, obsoletely constricted at about one-third from apex, narrowed anteriorly, basal twice the width of anterior margin; scutellum moderately long, tumid, subdepressed and longitudinally sulcate; hemelytra hyaline; corium with cuneus just passing abdominal apex, cuneus longer than broad; membrane with a long basal cell; legs of moderate length, posterior femora longest and incrassate.

By the structure of the hemelytra resembling *Hyalopeplus*, Stål, but differing entirely from it by the structure of the head.

1358. **Callicratides rama**, *Kirby* (Capsus), *J. Linn. Soc., Zool.* xxiv, p. 106 (1891); *Kirk.* (Hyalopeplus) *J. Bomb. N. H. Soc.* xiv, p. 58, pl. A, f. 8, pl. B, f. 6 (1902).

Pale ochraceous; antennæ sometimes fuscous, sometimes with

first joint and basal half of second more or less ochraceous; pronotum with the anterior lobe finely mottled with reddish, basal margin and some linear spots at anterior margin black, a central longitudinal line black or reddish, the lateral margins

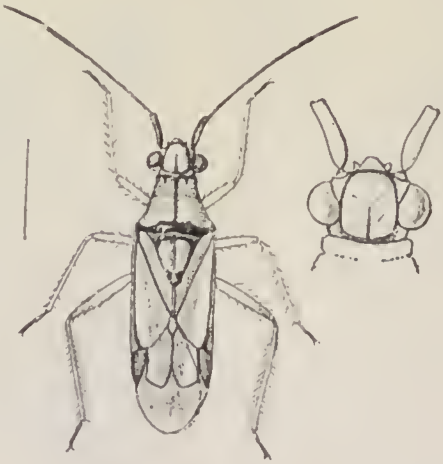

Fig. 265.—*Callicratides rama.*

also sometimes black; hemelytra hyaline, the lateral margins and cuneus reddish, the venation piceous; femora, especially posterior femora, finely spotted with fuscous-red, their bases unspotted.

Length 8 to 9½ millim.

Hab. Ceylon; Peradeniya, Nawalapitiya (*Green*).

Genus **HARPEDONA**, nov.

Type, *H. marginata*, Dist.

Distribution. Ceylon.

Subelongate; head moderately robust and tumid, somewhat obscurely but broadly centrally longitudinally sulcate; antennæ with the first joint about as long or scarcely as long as head, second joint more than twice or nearly three times as long as first, its apex very slightly thickened; pronotum moderately long, with a distinct narrow anterior collar, and transversely constricted before middle, anterior lobe much narrower and shorter than posterior lobe, with a small distinct foveation at centre of its posterior margin, posterior lobe finely and obscurely punctate, its posterior lateral angles subprominent; scutellum somewhat small and foveate; hemelytra a little narrowed posteriorly, with the lateral margins straight and subparallel; cuneus broad; legs slender: rostrum passing the anterior coxæ (imperfectly seen owing to typical specimen being in a carded condition), first joint about as long as head, first and second joints subequal, third and fourth short.

1276. Harpedona marginata, sp. n.

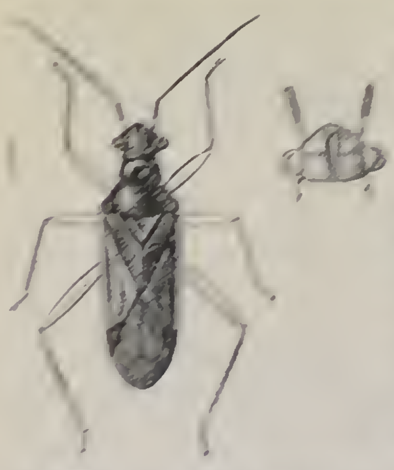

Fig. [illegible].—*Harpedona marginata.*

Black; base of first joint of antennæ, coxæ, trochanters, legs, rostrum, and lateral margins of corium stramineous; antennæ beneath ochraceous, the margins and apex piceous; pronotal collar and anterior lobe shining black, posterior lobe opaque, finely and obscurely punctate, and shortly pilose; an apical line on upper surface of posterior femora, and the posterior tibiæ, excluding apices, pale luteous.

Var. Corium excluding clavus pale luteous-brown.

Length 3½ millim.

Hab. Ceylon; Peradeniya (*Green*).

The type with the corium wholly black is in the British Museum; a series of specimens since received from Mr. Green constitute the variety described above.

Punctures the foliage of *Dioscorea* sp., and causes considerable injury to the yam-plant (*E. E. Green*).

Genus CLAPMARIUS, nov.

Type, *C. turgidus,* Dist.

Distribution. Ceylon.

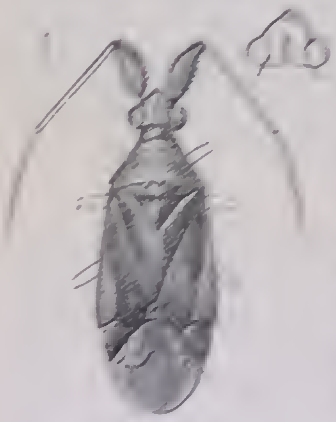

Fig. [illegible].—*Clapmarius turgidus.*

Body elongately subovate; head somewhat long and triangularly produced in front, distinctly centrally sulcated; eyes somewhat large, extending from near base of antennæ to anterior margin of pronotum; antennæ with the first joint about as long as pronotum, pilose, much [illegible] incrassate, profoundly attenuated at base, narrowed at apex, second joint slender, about half as long again as first; rostrum almost reaching the posterior coxæ (as seen in carded specimens); pronotum rugulose, more than twice as broad at base as at apex, anteriorly constricted near anterior margin; mesonotum exposed; scutellum finely transversely striate; corium a little widened posteriorly, its apical angle acute, and with no apparent fracture at apex of clavus which is broad and long; cuneus a little longer than broad, the fracture profound; legs mutilated in typical specimen.

1360. **Clapmarius turgidus**, sp. n.

Above very dark castaneous, lateral margins of corium (widened posteriorly) and the cuneus paler; antennæ very pale castaneous, the second joint and rostrum ochraceous; membrane fuliginous; pronotum rugulose; scutellum finely transversely striate; hemelytra obscurely pubescent; legs mutilated in typical specimen.

Length 4 millim.

Hab. Ceylon; Yatiyantota (*Green*).

Genus **MYSTILUS**, nov.

Type, *M. priamus*, Dist.

Distribution. Tenasserim.

Subelongate: head broad, deeply centrally, longitudinally sulcate, somewhat convexly produced in front of eyes, which touch the anterior margin of the pronotum, but project beyond it: antennæ very much longer than the body, with the first joint almost as long as the head and pronotum together, remaining joints very slender; rostrum considerably passing the posterior coxæ; pronotum subquadrate, a little narrowed anteriorly, very coarsely punctate or subrugulose, constricted at about one-third from anterior margin, where there are two rounded callosities; scutellum moderately tumid; hemelytra hyaline, lateral margins slightly sinuate; legs very long, posterior tibiæ very much longer than the femora; cuneus a little longer than broad.

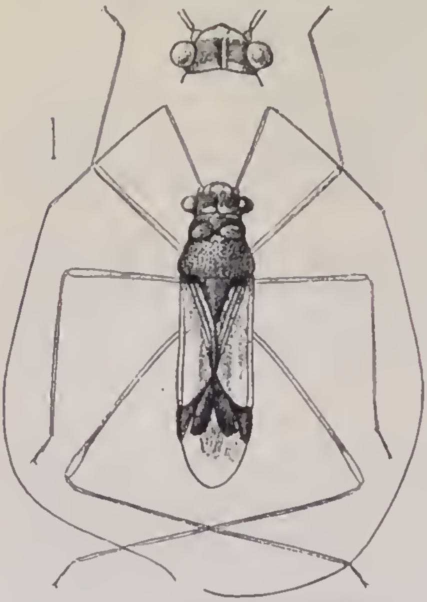

Fig. 268.—*Mystilus priamus.*

1361. **Mystilus priamus**, sp. n.

Head, antennæ, pronotum, and scutellum black, opaque; hemelytra pale greyish hyaline; base and apex of clavus, apical margin of corium, cuneus, and basal cell to membrane dark fuscous-brown; rostrum and legs brownish-ochraceous, bases of femora and apices of tibiæ luteous; sternum piceous, abdomen beneath ochraceous, with its apical area and upper surface piceous; base of first joint of antennæ, apex of head, and two spots between the eyes ochraceous.

Length 4 millim.

Hab. Tenasserim; Myitta (*Doherty*).

Genus MECISTOSCELIS.

Mecistoscelis, *Reut. Rev. d'Ent.* x, p. 131 (1891).

Type, *M. scirtetoides*, Reut.

Distribution. Java, Tenasserim.

Body elongate; head robust, conically produced and deflected before insertion of antennæ, the disk centrally longitudinally sulcate; antennæ much longer than body, basal joint about as long as head, pronotum and scutellum together, remaining joints very slender, second longer than first; rostrum reaching the intermediate coxæ; eyes prominent, almost touching the anterior margin of the pronotum, but projecting beyond it; pronotum subquadrate, longer than broad, a little narrowed anteriorly, punctate, with a narrow anterior collar, and two transverse callosities between it and a transverse constriction at about one-third from anterior margin; hemelytra narrow, their lateral margins slightly sinuate, cuneus longer than broad; legs long and slender, femora very slightly incrassate at apices, posterior tibiæ very long.

1362. **Mecistoscelis scirtetoides**, *Reut. Rev. d'Ent.* 1891, p. 132.

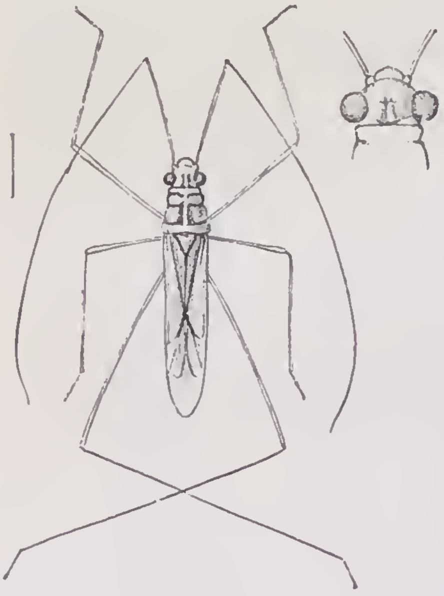

Fig. 269.—*Mecistoscelis scirtetoides.*

Head ochraceous; eyes, sometimes basal margin, and sometimes (as in specimen here figured) two discal lines piceous; pronotum virescent; transverse incisures, and two discal parallel lines, not reaching base, fuscous, in some specimens these darker markings are almost obsolete; scutellum virescent; hemelytra pale virescent semi-hyaline, the extreme base and whole of clavus dark fuscous; membrane very pale fuliginous and with a pearly virescent tinge, the veins darker; sternum infuscated; abdomen pale ochraceous or virescent; legs ochraceous, apices of tibiæ and tarsi fuscous; antennæ with the first and second joints more or less ochraceous; remaining joints fuscous.

Length 6 to 7 millim.

Hab. Tenasserim; Myitta (*Doherty*).—Java (*fide Reuter*).

Species unknown to the writer.

1363. **Systellonotus palpator**, *Kirk. Tr. E. S.* 1902, p. 247.

"Blackish-brown, shining; antennæ stramineous, more or less infuscate; legs pallid, more or less infuscate, basal two-thirds of posterior femora dark; elytra fuscous, cuneus and lateral margins darker; a small spot at junction of clavus, corium, and membrane, and two large corial spots (at base and apex, the latter extending a little on to the clavus) white; membrane pale fuscous, a white central transverse band; venter black.

"♂. Body sparsely and shortly pilose; head (with eyes) broader than long, short behind the eyes, the latter prominent; antennæ not incrassate, second joint four times as long as first, two-thirds longer than third."

Length $3\frac{1}{5}$ millim.

Hab. Sind; Karachi (*fide Kirkaldy*).

Mr. Kirkaldy does not mention any sulcation to the head, a character of *Systellonotus.*

Division *MIRARIA*.

Miraria, *Reut. Hem. Gymn. Eur.* iii, p. 565 (1883): *Dist. Biol. Centr.-Am., Rhynch.* i, p. 235 (1883).

In this division, as I recognize it, the head is always porrect and well developed in front of the antenniferous tubercles and distinctly longitudinally impressed or sulcate between the eyes; the pronotum is not distinctly transversely constricted, nor does it exhibit distinct anterior and posterior lobes; the basal joint of the antennæ is usually hirsute, but this is not an invariable character.

I now also include in this division the Neotropical genera *Jacchinus*, Dist., and *Pœas*, Dist.

Synopsis of Genera.

A. Head elongate, longer than broad.
  a. Basal margin of pronotum concavely sinuate, exposing base of mesonotum . . MEGALOCERÆA, p. 424.
  b. Basal margin of pronotum truncate, base of mesonotum not exposed.
    a. Rostrum either not passing or not reaching posterior coxæ.
      a'. Pronotum and scutellum distinctly punctate .... MIRIS, p. 423.
      b². Pronotum and scutellum impunctate MATENESIUS, p. 425.
    b. Rostrum passing posterior coxæ...... RHINOMIRIS, p. 426.
B. Head transverse, about as long as broad.
  a. Rostrum reaching or passing posterior coxæ MEGACŒLUM, p. 427.
  b. Rostrum not passing intermediate coxæ.
    a. Pronotum distinctly punctate.
      a'. Body elongate, not pilose above, lateral pronotal angles subprominent.
        a². First joint of antennæ about as

long as head; pronotum about as long as half its width at base. TANCREDUS, p. 430.
b^2. First joint of antennæ considerably longer than head; pronotum longer than half its width at base .... COMBALUS, p. 431.
b'. Body broadly ovate, thickly pilose above; lateral pronotal angles not subprominent .... DIOGNETUS, p. 431.
b. Pronotum impunctate .... ZANESSA, p. 432.

Genus MIRIS.

Miris, *Fabr. Syst. Rhyng.* pp. ix & 253 (1803); *Burm. Handb.* ii, 1, p. 264 (1835); *Amy. & Serv. Hém.* p. 277 (1843); *Kirschb. Caps. v. Nassau* (1855); *Reut. Bih. Vet.-Ak. Handl.* iii, 1, p. 8 (1875).
Myris, *Hahn, Wanz. Ins.* ii, p. 73 (1834).
Lopomorphus, *Dougl. & Scott, Brit. Hem.* p. 293 (1865).

Type, *M. lævigatus*, Linn., a Palæarctic and Nearctic species.
Distribution. Probably universal.

Elongate or subelongate; head with a distinct longitudinal impression, the eyes touching the anterior margin of the pronotum; antennæ with the basal joint robust, longly pilose or setose, about as long as the head or a little longer; rostrum extending to about the apex of the mesosternum; pronotum very strongly punctate, with the base truncate, and concealing the base of the mesonotum; scutellum also distinctly punctate; legs usually elongate, and posterior femora very seldom dentate.

1364. **Miris atkinsoni**, sp. n.

Very pale brownish-ochraceous; head and anterior area of pronotum pale brownish, posterior two-thirds of pronotal area fuscously punctate, the lateral margins and a narrow central longitudinal line pale ochraceous; scutellum fuscously punctate, the apex impunctate and pale ochraceous; corium and cuneus pale ochraceous, with some nearly obsolete reddish shadings, more distinctly visible at apex of clavus; membrane subviridescent, the venation ochraceous; antennæ with the first and base of second joint strongly pilose, first joint a little incrassate, about as long as pronotum, second joint more than twice as long as first; head anteriorly finely punctate, basal area impunctate, where the central sulcation is more profound.

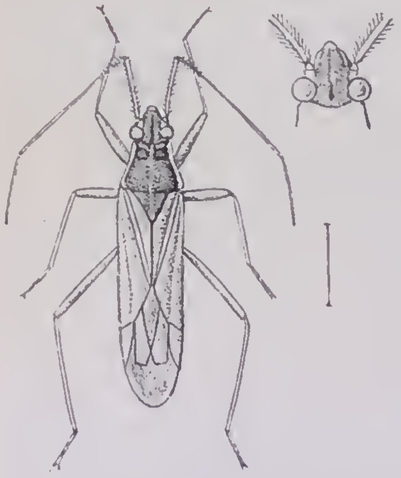

Fig. 270.—*Miris atkinsoni.*

Length 9 millim.

Hab. Nilgiri Hills; Utakamand (*Atkinson, Brit. Mus.*).

Genus MEGALOCERÆA.

Megalocerœa, *Wien. ent. Monats.* ii, p. 301 (1858); *id. Eur. Hem.* pp. 62 & 243 (1861): *Reut. Bih. Vet.-Akad. Handl.* iii, 1, p. 8 (1875).
Subg. Notostira, Megalocerœa, Trigonotylus, *Fieb. tom. cit.*

Type, *M. recticornis*, Geoffr., a Palæarctic species.

Distribution. Probably universally distributed.

Allied to the preceding genus (*Miris*), but differing in the sinuate basal margin of the pronotum, which is only obsoletely punctate, the non-punctate scutellum, and the exposed base of the mesonotum.

A. *Basal joint of antennæ strongly hirsute.*

1365. **Megaloceræa graminea**, sp. n.

Very pale dull ochraceous; posterior lobe of pronotum and hemelytra, excluding clavus and claval area, pale greyish; abdomen beneath pale greyish, its lateral margins roseate; second joint of antennæ (sometimes excluding base), posterior tibiæ (excluding base), and basal joint of posterior tarsi roseate; apices of tarsi piceous; first joint of antennæ and the base of second strongly hirsute, first about as long as head and pronotum together, second longer than first and shorter than third: head sharply longitudinally incised between eyes; pronotum and scutellum with a central continuous pale linear fascia, anterior pronotal lobe with some transverse darker markings.

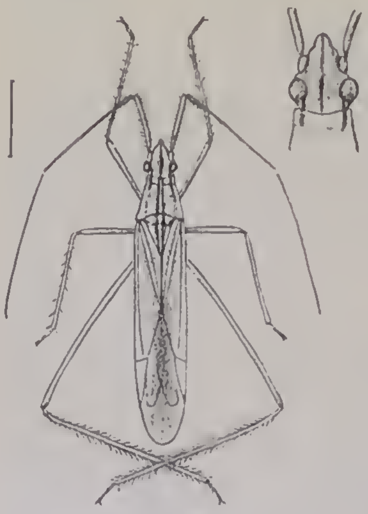

Fig. 271.
Megaloceræa graminea.

Length $7\frac{1}{2}$ to 8 millim.

Hab. Ceylon; Pundaluoya (*Green*). Burma; Ruby Mines (*Doherty*).

Swept from grass (*E. E. Green*).

1366. **Megaloceræa antennata**, sp. n.

Dull pale ochraceous; antennæ with the first joint incrassate, thickly finely hirsute, and thickly speckled with sanguineous; apical areas of the femora obsoletely speckled with sanguineous; lateral margins and a central longitudinal line to pronotum pale ochraceous; legs pilose; head very distinctly pilose on posterior area; pronotum thickly and finely punctate, an impunctate callose spot on each side near anterior margin; scutellum transversely striate,

with a central longitudinal carination; tibiæ thickly and longly pilose.

Length 8 millim.

Hab. Sikhim; Kurseong (*Coll. Dist.*).

B. *Basal joint of antennæ not hirsute.*

1367. **Megaloceræa elongata**, sp. n.

Ochraceous; legs black; pronotum and scutellum with a central pale linear fascia; membrane pale ochraceous; the mesosternum and lateral areas of prosternum greyish ochraceous; rostrum just passing the posterior coxæ, its apex piceous; antennæ not hirsute, first joint incrassate, a little longer than head, second and third joints longest and subequal in length; head with a sharp central longitudinal incision between the eyes; anterior lobe of pronotum with some transverse testaceous markings, posterior lobe obsoletely punctured; apices of the tarsi piceous.

Length 11 millim.

Hab. Ceylon; Pundaluoya (*Green*).

1368. **Megaloceræa dohertyi**, sp. n.

Head, pronotum, scutellum, body beneath and legs pale ochraceous; hemelytra stramineous; antennæ purplish-red; lateral margins of pronotum and a central longitudinal line extending throughout scutellum creamy-white; eyes piceous; first joint of antennæ a little incrassate, about as long as head, second and third joints long, about subequal in length; head with the lateral margins and a central longitudinal line narrowly purplish-red; pronotum with the lateral and anterior margins acutely reflexed, posterior margin concavely sinuate, a transverse incision on each side before anterior margin.

Length 4 millim.

Hab. Tenasserim; Myitta (*Doherty*).

Genus **MATENESIUS**, nov.

Type, *M. marginatus*, Dist.

Distribution. Ceylon; Tenasserim.

Moderately elongate; head distinctly longitudinally incised between eyes, which almost touch the anterior margin of the pronotum; first joint of antennæ about as long as head or slightly longer, somewhat strongly thickened, hirsute, second long, slender, a little shorter than third; rostrum reaching the posterior coxæ; pronotum impunctate, its lateral margins a little carinately ampliated, its base truncate, a little oblique near angles, transversely constricted towards middle; scutellum small, triangular, impunctate; hemelytra distinctly broader than abdomen; cuneus longer than broad; membrane with a single subovate cell; legs of moderate length, pilose; hemelytra much longer than body; membrane considerably passing abdominal apex.

1369. **Matenesius marginatus**, sp. n.

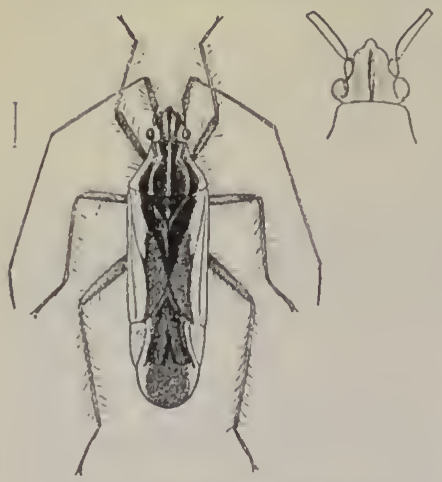

Fig. 272.—*Matenesius marginatus.*

Chocolate - brown ; head ochraceous ; three longitudinal discal lines to pronotum, lateral margins to pronotum and hemelytra (the last broad), and narrow lateral margins to sternum and hemelytra beneath stramineous ; scutellum and clavus (excluding apex) black ; disk of membrane pale fuscous ; body beneath and legs ochraceous ; legs longly pilose.

Length $4\frac{1}{2}$ millim.

Hab. Ceylon ; Pundaluoya (*Green*). Burma ; Karennee (*Fea*). Tenasserim ; Myitta (*Doherty*).

Genus RHINOMIRIS.

Rhinomiris, *Kirk. Tr. E. S.* 1902, p. 268.

Type, *R. vicarius*, Walk.

Distribution. Oriental Region.

Head subhorizontal, produced triangularly in front of eyes, which are large and almost touch the anterior margin of the pronotum, disk distinctly longitudinally sulcate between eyes ; antennæ long, nearly as long as body, first joint about as long as head and considerably passing its apex ; rostrum very long, passing posterior coxæ ; pronotum finely rugulose, almost medially constricted, the anterior area laterally rounded, moderately gibbous on disk, and with a central impressed line, posterior area laterally obliquely widened to posterior angles, the basal margin moderately sinuate ; scutellum somewhat tumid ; legs moderately long and slender.

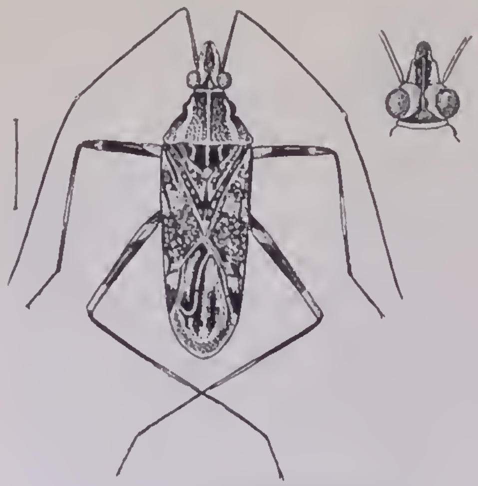

Fig. 273.—*Rhinomiris vicarius.*

1370. **Rhinomiris vicarius**, *Walk.* (Capsus) *Cat. Het.* vi, p. 121 (1873) ; *Kirk. Tr. E. S.* 1902, p. 269.

Capsus canescens, *Walk. Cat. Het.* vi, p. 121 (1873).

Head and pronotum ochraceous ; head with a central anterior fascia and the eyes piceous ; pronotum with four broad longitudinal fasciæ, two central and one at each lateral margin, piceous ; scutellum ochraceous,

with the basal angles and two central fasciæ piceous; corium purplish-brown, thickly covered with small bright ochraceous spots, a larger spot at apex of clavus and the inner margin unspotted, a dark purplish spot on apical margin near inner angle, cuneus shining piceous; membrane greyish-brown, the veins ochraceous, their margins, apical margin, and some discal oblique streaks purplish-brown; body beneath ochraceous with piceous shadings; legs purplish-brown, femora and tibiæ annulated with luteous; antennæ brownish-ochraceous, apices of the joints infuscated.

Length $7\frac{1}{2}$ to $9\frac{1}{2}$ millim.

Hab. Assam; Margherita (*Doherty*). Burma; Karennee (*Fea*).—Siam and Malacca (*Brit. Mus.*).

Genus MEGACŒLUM.

Megacœlum, *Fieb. Wien. ent. Monats.* ii, p. 305 (1858); *Stål, Hem. Afr.* iii, p. 18 (1865); *Reut. Act. Soc. Sc. Fenn.* xxiii, no. 2, p. 230 (1897).
Creontiades, *Dist. Biol. Centr.-Amer., Rhynch.* i, p. 237 (1883).
Pantiliodes, *Noualh. Ann. Soc. Ent. Fr.* 1893, p. 15.
Umslopogas, *Kirk. Tr. E. S.* 1902, p. 254.
Kangra, *Kirk. Tr. E. S.* 1902, p. 257.

Type, *M. infusum*, Herr.-Sch., a Palæarctic species.

Distribution. Palæarctic, Nearctic, Neotropical, Ethiopian, Oriental, and Australasian Regions.

Body elongate; head moderately and obliquely deflected before eyes, and with a distinct narrow central longitudinal sulcation; eyes somewhat prominent and contiguous to the anterior margin of the pronotum; antennæ about as long as the body, basal joint stoutest, as long as the head or longer, and sparingly but prominently hirsute, second joint about twice the length of the first, somewhat slender, slightly curved, and a very little incrassated at apex, third joint a little shorter than second, fourth about half the length of third or less; pronotum subtriangular, with a distinct narrow anterior collar, the anterior margin about half the width of posterior; scutellum large, its disk somewhat longitudinally raised and the lateral margins obliquely rounded; corium with the lateral margins subparallel; legs long, sparingly hirsute, the tibiæ with long and prominent setæ; posterior tarsi with the joints variable in length; rostrum reaching or passing the posterior coxæ.

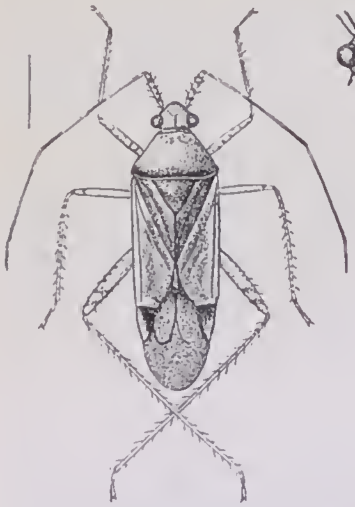

Fig. 274.—*Megacœlum antennatum.*

a. *First joint of posterior tarsi shorter than second or third joint.*

1371. **Megacœlum antennatum**, *Kirby* (Capsus), *Linn. Soc., Zool.* xxiv, p. 107 (1894).

Head and pronotum pale testaceous, very finely punctured; pronotum usually more or less shaded with purplish-brown; antennæ ochraceous, apices of the joints and a central annulation to the second joint fuscous-black; scutellum and corium purplish-brown, apex of scutellum and lateral margins of corium pale ochraceous; cuneus purplish, its apex ochraceous; membrane pale fuliginous; legs luteous, apices of femora more or less testaceous; head with a distinct central longitudinal sulcation; tibiæ longly setose.

Length 7 to 8 millim.

Hab. Nilgiri Hills (*Hampson*). Ceylon (*Lewis*); Pundaluoya (*Green*).

1372. **Megacœlum relatum**, sp. n.

Dark chocolate-brown; corium with the base of lateral margin and two submarginal lateral streaks on apical area obscure ochraceous; cuneus castaneous, its extreme apex piceous; coxæ, bases of femora and mottlings to tibiæ obscure stramineous; antennæ obscure stramineous, basal joint speckled with fuscous, apical joint infuscated.

Var. Whole lateral margin to corium somewhat broadly obscure ochraceous.

Length $5\frac{1}{2}$ millim.

Hab. Ceylon; Kandy (*Green*).

Allied to *M. antennatum*, but smaller; almost uniformly dark chocolate-brown above, colour of antennæ different, &c.

1373. **Megacœlum stramineum**, *Walk.* (Capsus) *Cat. Het.* vi, p. 120 (1873).

Kangra dudgeoni, *Kirk. Tr. E. S.* 1902, p. 257.

Pale ochraceous, corium with a slight virescent tinge; eyes and apex of scutellum piceous; apical areas of posterior femora testaceous; membrane pale hyaline; head with a distinct central longitudinal sulcation; antennæ with the first and second joints luteous, remainder fuscous; head, pronotum and scutellum very finely ochraceously pilose; tibiæ longly setose.

Length 7 to 8 millim.

Hab. North Bengal (*Campbell, Brit. Mus.*). Kangra Valley (*Dudgeon*). Ceylon; Pundaluoya (*Green*).

In his description of this species, Kirkaldy writes: "A number of oblique striæ on each side of vertex in front of the eyes, interior margin of clavus, apical margin of corium, membranal nervures, sanguineous." This probably relates to a very fresh specimen of the species.

Swept from grass (*E. E. Green*).

b. *First joint of posterior tarsi longer than second and about equal in length to third joint.*

1374. **Megacœlum rubricatum**, sp. n.

Head, antennæ and pronotum ochraceous; a central line to apex of head, eyes and lateral areas of pronotum dark fuscous or black; apical transverse striæ and basal margin to head and minute discal spots to pronotum sanguineous; scutellum and corium dull sanguineous, lateral area of the last, including cuneus, stramineous; membrane slate-grey, subhyaline; body beneath and legs very pale ochraceous; basal joint of antennæ and lateral margins of sternum and abdomen sanguineous; first joint of antennæ scarcely longer than head, second more than twice as long as first; body finely pilose; posterior tibiæ setose.

Length $5\frac{1}{2}$ millim.

Hab. Ceylon; Peradeniya and Pundaluoya (*Green*).

Swept from grass (*E. E. Green*).

c. *Posterior tarsi mutilated in specimens examined.*

1375. **Megacœlum forsythi**, *Dist.* (Calocoris) *Tr. E. S.* 1879, p. 125; *id.* (Calocoris) *Sec. Yark. Miss., Rhynch.* p. 10, f. 8 (1878); *Horv.* (Calocoris) *Termész. Füzetek*, xii, p. 38 (1889).

Brownish testaceous; antennæ with the first joint not quite so long as head and pronotum, second slightly and gradually thickened towards apex, third pale luteous at base, fourth mutilated in specimen described; head with a deep central longitudinal incision between the eyes; pronotum rugulose, faintly anteriorly and more distinctly so towards posterior margin; hemelytra slightly pilose, somewhat paler towards costal margin, and with the extreme outer margin somewhat obscurely piceous; membrane pale fuscous, somewhat clouded; scutellum obscurely and transversely strigose; body beneath castaneous; anterior legs ochraceous, tibiæ with a longitudinal series of small brownish spots. Intermediate and posterior legs mutilated in specimen described.

Length 7 millim.

Hab. Kashmir (*fide Horvath*). Punjáb: Murree (*Stoliczka*).

1376. **Megacœlum hampsoni**, sp. n.

Obscure sanguineous; pronotum, scutellum, lateral margins of corium, tibiæ and tarsi pale luteous; membrane dark fuliginous with a pale basal spot; apex of head, lateral areas of sternum, and apex of abdomen fuscous.

A single specimen of this distinct species in mutilated condition; the above characters will distinguish it, and more minute description must await the arrival of specimens in better condition.

Length 6 millim.

Hab. Nilgiri Hills (*Hampson*).

1377. **Megacœlum picturatum**, sp. n.

Head and pronotum ochraceous; eyes, lateral and subanterior and subbasal margins to pronotum black, anterior and basal margins to pronotum luteous, a subquadrate fuscous spot on each side of pronotal anterior area; scutellum luteous, its apex red; corium pale greyish-ochraceous, clavus and an irregular central transverse fascia fuscous, cuneus reddish; membrane pale fuliginous; legs luteous, apical halves of femora and the tarsi testaceous, apices of tarsi piceous; first joint of antennæ testaceous, second joint luteous with its apex testaceous (remaining joints mutilated in specimen described); head with a distinct narrow central longitudinal sulcation; pronotum obscurely punctate.

Length 7 millim.

Hab. Upper Burma; Goteik Gorge (*Bingham*, *Brit. Mus.*).

Genus **TANCREDUS**, nov.

Type. *T. sandaracatus*, Dist.

Distribution. Ceylon.

Subelongate; head with a distinct central longitudinal impression on its basal half, the eyes prominent and touching the anterior margin of the pronotum; antennæ with the first joint slightly thickened and about as long as the head, second joint about three times as long as the first, third about half as long as second; rostrum reaching the apices of the intermediate coxæ; pronotum punctate, broader than long, with a distinct but very narrow anterior collar, an obscure transverse constriction at about one-third from anterior margin, the lateral posterior angles distinctly prominent and subacute; scutellum subtriangular; corium with cuneus a little shorter than abdomen, clavus punctate and transversely striate; tibiæ setose.

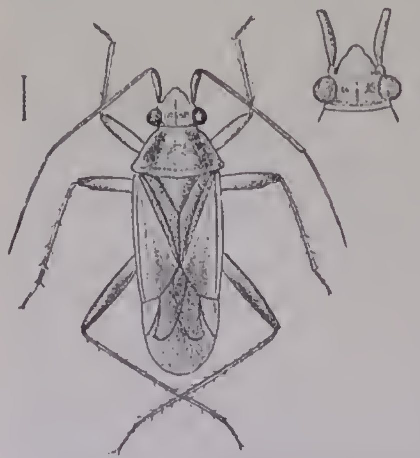

Fig. 275.—*Tancredus sandaracatus.*

1378. **Tancredus sandaracatus**, sp. n.

Pale stramineous; antennæ, inner margins of eyes, a broad oblique fascia on each lateral area of pronotum, clavus (excluding inner margin), apical area of corium, abdomen beneath, posterior femora (excluding base), apices of anterior and intermediate femora, and apices of posterior tibiæ sanguineous; tarsi infuscated; membrane very pale fuliginous.

Length 4 millim.

Hab. Ceylon; Kalutara (*Green*).

Swept from grass (*E. E. Green*).

Genus **COMBALUS**, nov.

Type, *C. novitius*, Dist.

Distribution. Assam.

Body elongate ; head short, broad, deflected anteriorly, with a distinct central longitudinal impression : eyes somewhat small, contiguous to the anterior margin of the pronotum ; antennæ with the first joint long, a little shorter than the pronotum, second about twice as long as first and strongly setose (remaining joints mutilated in specimen described) ; rostrum passing the anterior coxæ ; pronotum longer than half the width at base, coarsely punctate, with a very narrow anterior collar, behind which are two transverse callosities, lateral margins slightly sinuate ; scutellum transversely foveate at base, glabrous, apex acute ; corium smooth, shining, with a distinct impunctate margin, margins subparallel ; a distinct foveation beyond apex of clavus, cuneus longer than broad, fracture indistinct ; legs moderately short, femora not prominently incrassate.

1379. **Combalus novitius**, sp. n.

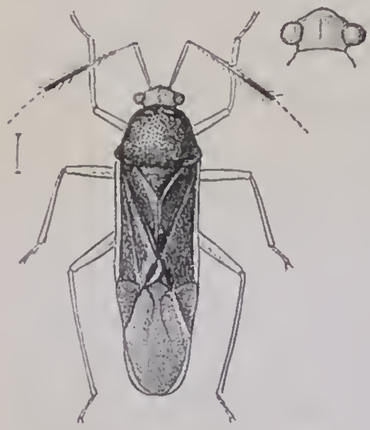
Fig. 276.—*Combalus novitius.*

Black, shining ; head, antennæ, rostrum, coxæ, legs, lateral margins of corium, and apparently (as seen in carded specimen) disk of abdomen beneath ochraceous ; apex of second joint of antennæ broadly black ; head glabrous ; pronotum coarsely punctate and subrugulose : scutellum very faintly transversely striate : corium pilose and very obsoletely punctate ; cuneus castaneous ; membrane shining fuliginous-brown.

Length $4\frac{1}{2}$ millim.

Hab. Assam ; Margherita.]

Genus **DIOGNETUS**, nov.

Type, *D. intonsus*, Dist.

Distribution. Ceylon.

Somewhat broadly ovate, thickly pilose ; head moderately deflected, with a deep, broad, longitudinal incision between eyes, which are broadly transverse, inwardly touching the anterior margin of the pronotum, but extending far beyond it ; antennæ moderately slender, basal joint very slightly thickened, about as long as head, second joint a little more than twice as long as first, rostrum reaching the intermediate coxæ ; pronotum punctate, the basal margin about three times the width of anterior margin,

deflected anteriorly, the posterior margin a little sinuate; scutellum somewhat large, subtriangular; hemelytra a little outwardly convex, lateral margins slightly laminate; cuneus a little longer than broad; membrane considerably passing abdominal apex; legs of moderate length, tibiæ strongly setose.

1380. **Diognetus intonsus**, sp. n.

Chocolate-brown, ochraceously pilose; extreme basal margin of pronotum and lateral marginal areas of corium ochraceous; eyes and a subbasal transverse fascia to pronotum black; cuneus bright castaneous, its basal margin flavescent; membrane pale fuliginous, its basal area and veins piceous; body beneath brownish-ochraceous; legs pale ochraceous, femora annulated with brown; antennæ dark ochraceous, third joint stramineous, apices of second and third joints and the whole of fourth piceous.

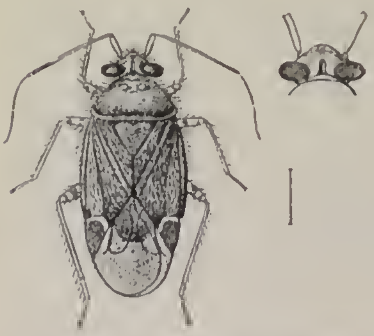

Fig. 277.—*Diognetus intonsus.*

Length $5\frac{1}{2}$ millim.
Hab. Ceylon; Maskeliya (*Green*).

Genus ZANESSA.

Zanessa, *Kirk. Tr. E. S.* 1902, p. 269.

Type, *Z. rubrovariegata*, Kirk., an Australian species.
Distribution. Australasian and Oriental Regions.

Covered with short hairs, not pubescent; head centrally sulcate (not carinate as described by Kirkaldy), slightly transversely impressed at base; eyes globular, prominent, almost touching but passing in width the anterior margin of the pronotum; rostrum extending to intermediate coxæ: pronotum moderately constricted before middle, the lateral margins sinuated or nearly straight, base a little emarginate; scutellum subtriangular, slightly tumid; antennæ moderately robust, first joint about as long as head, stoutest, second rather more than twice as long as first; legs of moderate length, slender, very finely pilose.

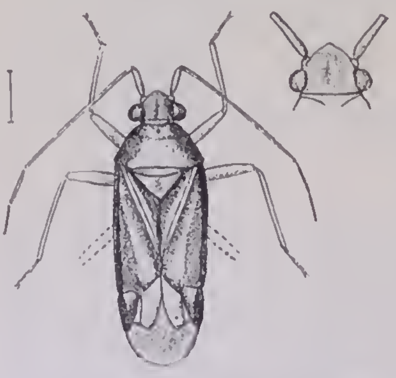

Fig. 278.—*Zanessa sanguinolenta.*

1381. **Zanessa sanguinolenta**, sp. n.

Ochraceous; basal joint of antennæ, eyes, lateral areas of pronotum, inner area of clavus, subclaval and lateral areas of corium,

cuneus (excluding base), and membranal veins sanguineous; body beneath and legs ochraceous; head distinctly longitudinally impressed or sulcate, transversely impressed, and also distinctly transversely carinate near base; pronotum and scutellum impunctate; membrane very pale fuliginous; scutellum with a faint longitudinal central darker line.

Length $5\frac{1}{2}$ millim.

Hab. Utakamand (*Atkinson Coll., Brit. Mus.*).

Division *CYLAPARIA.*

Valdasaria, *Dist. Biol. Centr.-Am., Rhynch.* i, p. 242 (1883).
Monalonionaria, *Reut. Ann. Soc. Ent. Fr.* lxi, p. 398 (1892).
Eucerocoraria, *Kirk. J. Bomb. N. H. Soc.* 1902, p. 294.
Cylaparia, *Kirk. Wien. ent. Zeit.* xxii, p. 13 (1903); *Dist. A. M. N. H.* (7) xiii, p. 107 (1904).

The name of this division was founded on that of the Neotropical genus *Valdasus*, Stål, which has since been proved to be a synonym of the older genus *Cylapus*, Say. As the name *Valdasus* no longer exists as a generic cognomen, it is necessary to alter the divisional name as above.

This division includes a series of genera in which the head is truncated or deflected, not produced in front of eyes, and always, though frequently obscurely, sulcated, and sometimes more correctly to be described as excavated; the antennæ are inserted well in front, but on a level with the inner margin of the eyes. The species thus comprised are of a more robust character than those of the Miraria, and their coloration is bright and handsome, thus resembling those of the following division.

Synopsis of Genera.

A. Eyes broad, transverse, somewhat contiguous on disk of head .... PHARYLLUS, p. 434.
B. Eyes of ordinary size and placed wide apart.
  a. Pronotum with a single anterior transverse constriction.
    a. First joint of antennæ longer than head, but shorter than pronotum .... ARGENIS, p. 434.
    b. First joint of antennæ as long as head and pronotum together .... HELOPELTIS, p. 439.
  b. Pronotum with two anterior transverse constrictions.
    a. Head transverse, short; eyes near to, but well separated from, anterior margin of pronotum.
      a'. First joint of antennæ globosely incrassate at base, second joint about twice as long as first .... GUISARDUS, p. 436.
      b'. First joint of antennæ not incrassate at base, second joint about half as long again as first .... PRODROMUS, p. 436.

b. Head long, transverse anteriorly, narrowly elongated posteriorly; eyes remote from anterior margin of pronotum and inserted near bases of antennæ.
  a'. Pronotum coarsely punctate: corium opaque . . . . ANGERIANUS, p. 437.
  b'. Pronotum not or remotely punctate: corium hyaline . . . . FELISACUS, p. 438.

Genus **PHARYLLUS**, nov.

Type, *P. pistacinus*, Motsch.
Distribution. Ceylon.

Subelongate; head broad with a central longitudinal impression, deflected in front of eyes, which are very large and transverse and well separated from anterior margin of pronotum; antennæ with the first joint longer than head, second rather more than twice the length of first; rostrum mutilated in specimen examined; pronotum with a very narrow anterior collar, transversely impressed before middle and enclosing two transverse nodulosities, lateral margins almost obliquely straight, basal margin truncate, slightly recurved at lateral angles; scutellum a little tumid, its apex subacute; corium opaque, cuneus longer than broad with an acute fracture; posterior tibiæ long, setose.

1382. **Pharyllus pistacinus**, *Motsch.* (Leptomerocoris?) *Bull. Soc. Nat. Mosc.* xxxvi (2) p. 85 (1863).

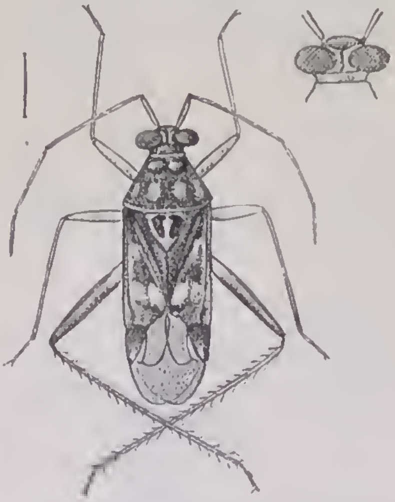

Fig. 279.—*Pharyllus pistacinus.*

Dark purplish-brown; extreme basal margin and two (sometimes four) discal spots to pronotum, lateral margins, apex, and a central line to scutellum, a spot before middle and two transverse fasciate spots before apex of corium, coxæ, trochanters, anterior and intermediate legs, bases of posterior femora, tarsi and base of abdomen beneath ochraceous; membrane fuliginous; anterior and intermediato tibiæ finely setose, posterior tibiæ longly setose.

Length $6\frac{1}{2}$ millim.

Hab. Ceylon; Colombo (*Green*).

Genus **ARGENIS**.

Argenis, *Dist. A. M. N. H.* (7) xiii. p. 107 (1904).

Type, *A. incisuratus*, Walk.
Distribution. Ceylon.

Head broad, not horizontally produced in front of eyes, which

touch the anterior margin of the pronotum, but exceed it in width, distinctly longitudinally centrally impressed or very finely sulcate; antennæ with the first joint longer than head but shorter than pronotum, second joint almost twice as long as first, third joint about one-third shorter than second; eyes large, globose; pronotum coarsely punctate, transversely constricted before middle, posterior lobe tumid, centrally very obscurely carinate, posterior angles subprominent and a little tuberculous; scutellum triangular, the apex somewhat acute; corium long, cuneus passing apex of abdomen; membrane somewhat small; body beneath obscurely seen owing to typical specimen being in a carded condition; legs of moderate length; posterior femora scarcely thickened.

1383. **Argenis incisuratus**, *Walk.* (Capsus) *Cat. Het.* vi, p. 121 (1873): *Dist. A. M. N. H.* (7) xiii, p. 107 (1904).

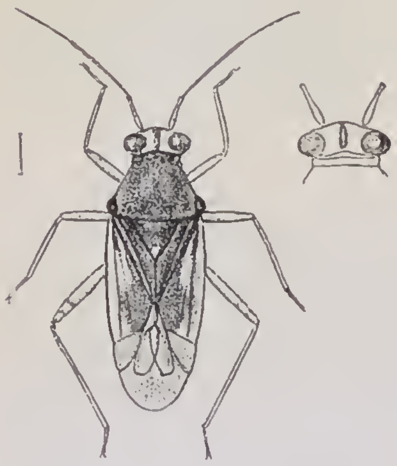

Fig. 280.—*Argenis incisuratus.*

Head ochraceous, the central impression and eyes fuscous; pronotum brownish-ochraceous, the obscure central longitudinal carina and two broad oblique discal fasciæ piceous, posterior lateral angles black; scutellum brownish-ochraceous, its apex luteous; corium luteous; clavus, a subclaval fascia extending to interior angle, a basal lateral spot, a small elongate discal spot a little beyond middle, and apical margin of cuneus piceous-brown; membrane pale brownish, subhyaline; antennæ with first joint luteous, remainder fuscous; legs and body beneath imperfectly seen owing to the carded condition of the typical specimen.

Length 4 millim.

Hab. Ceylon (*Thwaites & Green*).

1384. **Argenis alboviridescens**, sp. n.

Head, antennæ, pronotum, and scutellum black; base of first joint of antennæ, anterior pronotal collar, posterior lateral angles of pronotum, and the corium creamy-white, the last with a very slight virescent tinge; membrane pale hyaline; body beneath piceous-brown, legs pale luteous; body elongate; head strongly centrally sulcated, obscurely punctate, and with two subobsolete discal pale spots; posterior lobe of pronotum somewhat coarsely granulate, with two distinct nodosities on anterior area, the posterior lateral angles subnodulose; margins of clavus and sublateral margins of corium linearly finely punctate.

Var. Antennæ fuscous-brown, apices of first and second joints piceous; posterior area of pronotum brownish-ochraceous, not black.

Length $4\frac{1}{2}$ to 5 millim.

Hab. Ceylon (*Green, Brit. Mus.*).

Genus **GUISARDUS**, nov.

Type, *G. pellucidus*, Dist.

Distribution. Tenasserim.

Subelongate; head broad, perpendicularly deflected in front of eyes, centrally medially depressed and shortly finely longitudinally sulcate; eyes large, prominent, well separated from anterior margin of pronotum; antennæ with the first joint longer than head and distinctly globosely incrassated at its base, second joint about twice as long as first; rostrum reaching the intermediate coxæ; pronotum longer than broad, doubly constricted on anterior area, with two central discal curved carinæ, the lateral posterior angles nodulose, the basal margin concavely sinuate; scutellum a little tumid, centrally linearly impressed; hemelytra subhyaline, cuneus longer than broad.

1385. **Guisardus pellucidus**, sp. n.

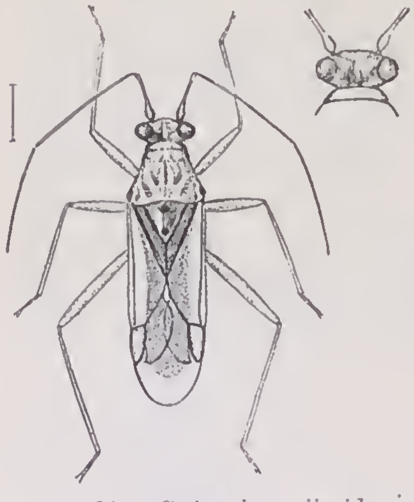

Fig. 281.—*Guisardus pellucidus.*

Head, pronotum, scutellum, body beneath and legs very pale ochraceous; antennæ (excluding basal joint), eyes, lateral margins and posterior lateral angles of pronotum, and a central basal spot and apex to scutellum black; apical margin of corium, margins of cuneus, and veins to membrane piceous; posterior area of pronotum tumid, transversely rugulosely striate and centrally longitudinally incised on disk; clavus moderately infuscated.

Length 6 millim.

Hab. Tenasserim; Myitta (*Doherty*).

Genus **PRODROMUS**, nov.

Type, *P. subflavus*, Dist.

Distribution. Ceylon and Tenasserim.

Elongately subovate; head broad, medially depressed and centrally longitudinally impressed, eyes prominent and well separated from anterior margin of pronotum; antennæ with the first joint a little longer than head, second about half as long again as first; rostrum passing the intermediate coxæ; pronotum with a narrow anterior

collar, transversely constricted before middle and enclosing two transverse callosities, posterior area tumid, coarsely punctate, the basal margin concavely sinuate, the lateral posterior angles subnodulose; scutellum subtriangular, a little tumid; hemelytra moderately concavely ampliated, cuneus longer than broad, the fracture distinct; legs of moderate length.

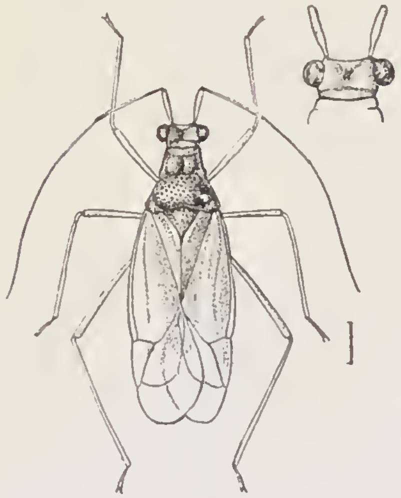

Fig. 282.—*Prodromus subflavus.*

1386. **Prodromus subflavus**, sp. n.

Head, pronotum, scutellum, clavus, and body beneath pale ochraceous; corium, legs, and antennæ pale stramineous; apex of second joint of antennæ piceous; membrane pale hyaline; pronotum, excluding the nodulosities and anterior collar, coarsely punctate; scutellum and clavus punctate.

Length $4\frac{1}{2}$ millim.

Hab. Ceylon; Peradeniya (*Green*).

1387. **Prodromus clypeatus**, sp. n.

Stramineous; apex of second joint of antennæ piceous; eyes and scutellum, excluding basal margin, black, inner margin of clavus ochraceous; corium finely and obscurely pilose.

Allied to *P. subflavus*, but differing by the black and shining scutellum, and otherwise by the uniform pale stramineous coloration.

Length 5 millim.

Hab. Tenasserim; Myitta (*Doherty*).

1388. **Prodromus subviridis**, sp. n.

Very pale greyish-green; a black spot on abdomen above near apex of scutellum, imperfectly seen through the pale hemelytra; apex of second joint of antennæ brown; eyes piceous; body above finely and obscurely greyishly pilose.

Length 4 millim.

Hab. Tenasserim; Myitta (*Doherty*).

Genus **ANGERIANUS**, nov.

Type, *A. fractus*, Dist.

Distribution. Tenasserim.

Subovately elongated; head very broad between eyes, anteriorly perpendicularly deflected, medially longitudinally impressed,

transversely impressed behind eyes and narrowed to base; eyes somewhat small and very longly removed from anterior margin of pronotum; antennæ with the basal joint a little longer than head; rostrum robust, the apical joint slender; pronotum coarsely punctate, with a very narrow anterior collar and two anterior transverse constrictions which give the appearance of two very short lobes together shorter than the posterior lobe, which is moderately tumid, the posterior lateral angles subprominent, the basal margin subtruncate; scutellum small, tumid, transversely foveate at base; hemelytra with the lateral margin of corium a little convex, the cuneus longer than broad, its fracture very profound; legs of moderate length.

1389. **Angerianus fractus**, sp. n.

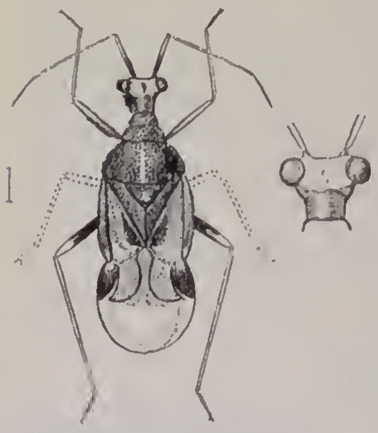

Fig. 283.—*Angerianus fractus.*

Piceous; antennæ, head between eyes, a central longitudinal fascia to posterior pronotal lobe, a central spot to scutellum, corium (excluding clavus), apical joint of rostrum, coxæ, trochanters, and legs pale ochraceous; base of first joint of antennæ, a subclaval and posterior lateral spot to corium, cuneus (excluding base), and central area of femora, piceous; membrane pale hyaline, the venation piceous; pronotum coarsely punctate; clavus and basal area of corium more finely punctate.

Length $3\frac{1}{3}$ millim.

Hab. Tenasserim; Myitta (*Doherty*).

1390. **Angerianus maurus**, sp. n.

Black; antennæ, excluding basal two-thirds of first joint, head between eyes, basal lateral margin of corium, and legs pale ochraceous; femora (excluding base) and bases of tibiæ black; base of cuneus narrowly pale ochraceous; membrane pale hyaline, the venation piceous; pronotum coarsely punctate, corium shining black.

Length 3 millim.

Hab. Tenasserim; Myitta (*Doherty*).

Genus **FELISACUS**, n. nom.

Liocoris, *Motsch. Bull. Soc. Nat. Mosc.* xxxvi (3) p. 86 (1863); *nec* Liocoris, *Fieb.* (1859).

Type, *F. glabratus*, Motsch.

Distribution. Ceylon and Tenasserim.

Elongate; head long and broad, transversely constricted behind eyes, somewhat strongly and broadly sulcately excavate between eyes, which are moderately prominent and inserted at or near the

antennal tubercles, remote from base; rostrum reaching the posterior coxæ; antennæ with the first joint stoutest and about as long as the pronotum, second a little longer than the third; pronotum posteriorly convexly tumid, strongly constricted before middle, and with a very narrow anterior collar, posterior angles subnodulose; scutellum small, subtriangular; hemelytra hyaline; cuneus somewhat long and slender; membrane with a single basal cell; legs of moderate length and slender.

1391. **Felisacus magnificus**, sp. n.

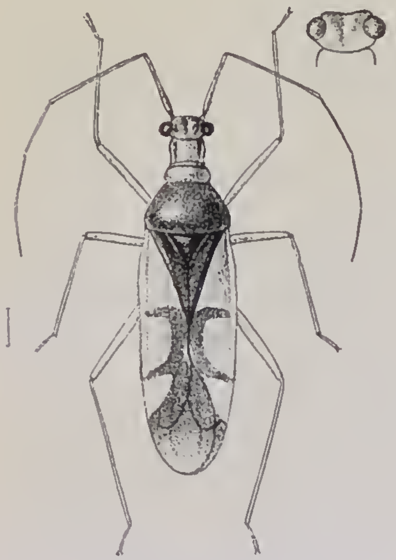

Fig. 284.—*Felisacus magnificus.*

Head, first joint of antennæ, anterior lobe and collar of pronotum pale sanguineous or reddish-ochraceous; corium pale hyaline; posterior lobe of pronotum, scutellum, clavus, two transverse fasciæ to corium inwardly connected, membrane, eyes, second and remaining joints of antennæ, and meso- and metasterna black or piceous; apical margin of membrane pale hyaline; head with two lateral dark sanguineous lines behind each eye, posterior tibiæ sometimes fuscous; posterior lobe of pronotum very finely and obsoletely punctate and with a transverse series of coarser punctures at the anterior constriction.

Length 4 millim.

Hab. Tenasserim; Myitta (*Doherty*).

1392. **Felisacus glabratus**, *Motsch.* (Liocoris) *Bull. Soc. Nat. Mosc.* xxxvi (2) p. 87, tab. ii, f. 20 (1863).

Dark ochraceous; hemelytra pale hyaline, the veins piceous: antennæ (excluding basal joint), eyes, and an oblique linear spot near apex of clavus black; coxæ and bases of femora very pale stramineous; inner margin of cuneus pale ochraceous; head, pronotum, and scutellum shining, glabrous; tarsi fuscous.

Length 4 millim.

Hab. Ceylon; Peradeniya, Diyatalawa (*Green*).

Genus **HELOPELTIS.**

Helopeltis, *Signoret, Ann. Soc. Ent. Fr.* (3) vi, p. 502 (1858).
Aspicelus, *Costa, Ann. Mus. Zool. Nap.* ii, p. 147 (1865).

Type, *H. antonii*, Sign.

Distribution. Oriental and Ethiopian Regions.

Body elongate; head broad, deflected in front of eyes, discally

and centrally longitudinally incised or sulcated; antennæ inserted in front of but on a level with the inner margin of the eyes, with the first joint about as long as the head and pronotum together, its apex moderately incrassated: pronotum strongly constricted before the middle, posterior margin more than twice the width of anterior; scutellum with a long more or less erect horn or spine, its apex clavate; legs moderately long and slender, femora nodulose.

All the species known are destructive pests to plants, and some attacking tea are formidable enemies to plantations.

a. *Scutellar horn nearly straight and perpendicular.*

1393. **Helopeltis antonii,** *Sign. Ann. Soc. Ent. Fr.* (3) vi, 1858, p. 502; *Waterh. Tr. Ent. Soc.* 1886, p. 458, pl. xi, f. 4; *Trimen, Nature*, xxx, p. 615 (1884).

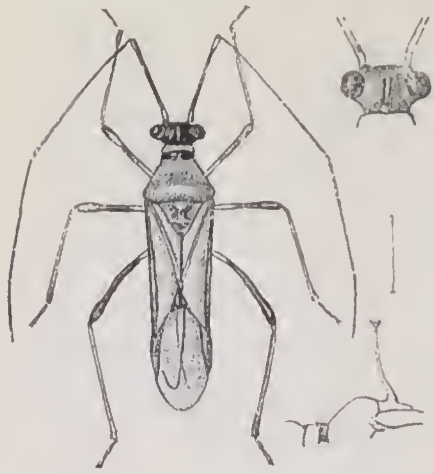

Fig. 285.—*Helopeltis antonii.*

♂. Head and pronotum black, anterior margin of pronotum narrowly obscurely ochraceous; rostrum obscure ochraceous, more or less suffused with fuscous, prominently so at apex; antennæ shining piceous, ochraceous at base; scutellum black, testaceous at apex; hemelytra pale olivaceous-fuscous; legs brown, speckled with ochraceous; bases of femora distinctly ochraceous; abdomen beneath luteous, with a basal spot and the apex black; scutellar horn nearly straight and perpendicular.

♀. Pronotum and most of the scutellum purplish-red, the transverse constriction to the first sometimes piceous.

Length 6 to 7½ millim.

Hab. Ceylon (*Green*). Tenasserim; Myitta (*Doherty*).

According to the late Dr. Trimen, this insect causes serious damage on cacao-plantations.

b. *Scutellar horn more or less distinctly curved backwards.*

1394. **Helopeltis theivora,** *Waterh. Tr. E. S.* 1886, p. 458, t. xi, f. 3; *Moore, ined.*

? Helopeltis febriculosa, *Bergr. Ent. Month. Mag.* xxv, p. 271 (1889).

♂. Head and pronotum shining black, much resembling the same sex of the preceding species (*H. antonii*), but with the scutellar horn more curved backward at apex.

♀. Black, pronotum bright shining stramineous or ochraceous,

with a subapical transverse fascia and the basal area shining black; scutellum ochraceous, more or less suffused with black, the horn long, black, piceous at apex; antennæ dark brown, basal joint paler, yellowish at base; femora dark brown, mottled with ochraceous, and with a distinct pale annulation near base; tibiæ ochraceous, speckled with fuscous; head beneath with a lateral luteous fascia on each side, more obscurely seen above; abdomen pale creamy-ochraceous, the apical third black.

Length 6 to 7 millim.

Hab. Assam (*Brit. Mus.*). Kangra Valley (*Dudgeon*).

The late Mr. Peal, of Assam, writing on this insect (Journ. Agri. Hort. Soc. Ind. iv, p. 131, 1872), said:—"There can be no doubt that this insect will be the future tea-planter's great enemy, if it does not seriously cripple the industry." When this insect is badly prevalent, gardens otherwise quite capable of yielding 1000 maunds may have their crops reduced to 700 or 800. Mr. Atkinson was informed that these insects commence to tap the tea-plant in February, and go on till the end of August (Ind. Mus. Notes, i, p. 180). Mr. E. C. Cotes, on the authority of Mr. C. N. Harcourt, states that the species injures tea both in spring and also during September; it attacks chiefly the young tea shoots, also fuchsias, and a tree (*Schima wallichii*) known locally as *chilauni*, which is botanically allied to the tea-plant (*ibid.* ii, p. 43). Mr. Dudgeon has observed and described the oviposition of *H. theivora*. Nine or ten eggs are generally found in the body of a mature female, as, owing to their large size in comparison with the insect itself, there would scarcely be room for more. It is possible that more eggs are formed as they are laid (*ibid.* iii (v) p. 35).

1395. **Helopeltis oryx**, sp. n.

♀. Shining, obscure sanguineous; head, antennæ, rostrum, anterior transverse constriction to pronotum, scutellar horn, apical third of abdomen, above and beneath, and legs black; base of first joint of antennæ, about basal half of rostrum, and bases of femora obscure sanguineous; corium and cuneus pale talc-like with an ochraceous tinge, the extreme margins piceous; membrane very pale fuliginous, the venation piceous; scutellar horn directed almost horizontally backward to the body, and extending over basal two-thirds of abdomen.

Length, ♀, 6½ millim.

Hab. Ceylon; Kandy (*Green*).

I have only seen a female specimen of this species, which has a very distinctive character in the length and direction of the scutellar horn.

Genera and Species unknown to the writer, but apparently to be included in the Mirinæ.

Genus EBLIS.

Eblis, *Kirk. Tr. E. S.* 1902, p. 256.

Type, *E. amasis*, Kirk.
Distribution. British India.

"Pronotum and elytra finely punctured; head strongly declivous; vertex obsoletely sulculate, clypeus scarcely elevated; head between eyes about equal to that of an eye, interior margin of the latter not sinuately emarginate, apically divergent; rostrum reaching beyond posterior coxæ; head and pronotum immarginate; antennæ longer than total length of body; membrane glabrous.

"Allied to *Capsus*, Fabr., but differs by the elongate slender antennæ and by the pronotum, narrower apically."

1396. **Eblis amasis**, *Kirk. Tr. E. S.* 1902, p. 256, pl. vi, f. 10 (side view of head only).

"Bronzy-black; head, pronotum, and scutellum (elytra sparsely) with silvery pubescence; anterior and intermediate tibiæ, all coxæ, apical half of posterior tibiæ, stink-gland orifices, third and fourth segments (joints) of antennæ pallid; first segment (joint) of antennæ about equal to length of pronotum, the former somewhat incrassate; second segment (joint) $2\frac{3}{5}$ longer than first, $\frac{1}{5}$ to $\frac{1}{6}$ longer than third, and a little more than twice as long as fourth; base of pronotum twice as wide as collar; posterior femora somewhat incrassate; tibiæ about one-third longer than femora.

"Length (including elytra) 7 to 8 millim.

"*Hab.* Kangra Valley (4500 ft., Aug. 1899, *Dudgeon*)."

The type is at present with the describer in the Sandwich Islands, and therefore not available for comparison.

Genus CHILOCAPSUS.

Cheilocapsus, *Kirk. Tr. E. S.* 1902, p. 259.

Type, *C. flavomarginatus*, Kirk.
Distribution. Burma.

"Vertex feebly marginate near the base; clypeus vertical, prominent, extending beyond vertex; eyes prominent, anterolaterally sinuately emarginate, oblique, together wider than vertex, remote from pronotum; rostrum extending to intermediate coxæ; pronotum with a well-marked collar, obsoletely callose behind the latter, lateral margins a little sinuately divergent posteriorly, $2\frac{3}{5}$ wider at base than at apex, subrugose transversely, posterior margin subrotundately truncate; elytra subrugose-punctate, extending beyond apex of abdomen, the larger membranal area angular apically; cuneus very elongate.

"Somewhat remotely allied to *Hyalopeplus*, Stål, but at once separable by the opaque elytra and differently formed pronotum."

In the specific description we read "Head with a slight longitudinal sulcus," which locates the genus in the Mirinæ.

1397. **Chilocapsus flavomarginatus**, *Kirk. Tr. E. S.* 1902, p. 259, pl. vi, f. 9 (outline of head only).

"Clothed with short, black, bristly hair; head, pronotum, extreme base of scutellum, legs and ventral surface dull flavous; exocorium, cuneus (except black interbasal angle and extreme apex) bright flavous; antennæ sanguineous, apex of second segment (joint) blackish; eyes, lateral margins (narrowly) of pronotum, scutellum, elytra, membranal nervures, &c., black; membrane cinereo-hyaline; posterior femora with four small black spots; dorsum of abdomen sanguineous; head with a slight longitudinal sulcus; first segment (joint) of antennæ subincrassate, subequal to pronotum in length, a trifle longer than cuneus, second a little more than twice as long as the first; first segment (joint) of anterior tarsi longer than second and third together."

Length 11 millim.

Hab. Burma; Shan Yoma.

The type is at present in the Sandwich Islands, and therefore not available for comparison.

Subfamily II. CAPSINÆ.

The Capsinæ may at once be distinguished from the Mirinæ by the non-sulcated head, and from the Isometopinæ by the absence, or practical absence, of ocelli. This is by far the largest section of the family, and contains the typical genera of Capsidæ.

I place three genera at the commencement of this subfamily which do not strictly appertain to any particular Division, and two of which have a considerable superficial resemblance to genera in the Mirinæ—*Disphinctus* to *Helopeltis*, and *Hyalopeplus* to *Callicratides*,—but the character of the non-sulcated head sufficiently distinguishes them. It is inadvisable to found a Division when represented by only a single genus, and each of the three here enumerated might be used for that purpose.

Genus **DISPHINCTUS**.

Disphinctus, *Stål, Öfv. Vet.-Ak. Förh.* 1870, p. 668.

Type, *D. falleni*, Stål, from the Philippines.

Distribution. Oriental and Malayan Regions.

Body elongate; head small, with eyes considerably broader than the anterior margin of the pronotum, truncately deflected before, constricted behind eyes, which are large and prominent; rostrum extending beyond the anterior coxæ; antennæ long, slender, and (excluding basal joint) pilose, first joint incrassated, slender at base, second joint longest, three or four times the length

of first; pronotum anteriorly narrowed, nearly three times broader at base than at apex, prominently constricted a little before middle and again near anterior margin: scutellum unarmed, moderately convex, sometimes with a faint central sulcation; hemelytra parallel, longly passing abdominal apex; legs of moderate length, pilose, posterior femora slightly incrassated.

1398. **Disphinctus humeralis**, *Walk.* (Monalonion) *Cat. Het.* vi, p. 162 (1873); *Bergr.* (Disphinctus) *Ent. Month. Mag.* xxv, p. 271 (1889).

Head, pronotum, sternum, rostrum, and legs ochraceous: antennæ, eyes, a large spot on each side of posterior lobe of pronotum, bases and apices of posterior femora, posterior tibiæ (excluding apices), meta- and sometimes mesosternum, two submedial transverse fasciæ to abdomen beneath, and apex of same black; abdomen beneath stramineous; base of first joint of antennæ luteous; scutellum very pale stramineous; hemelytra brownish-ochraceous, base, lateral margin, obscure transverse suffusion near inner angle and apex of cuneus fuscous; membrane pale fuscous, the veins darker.

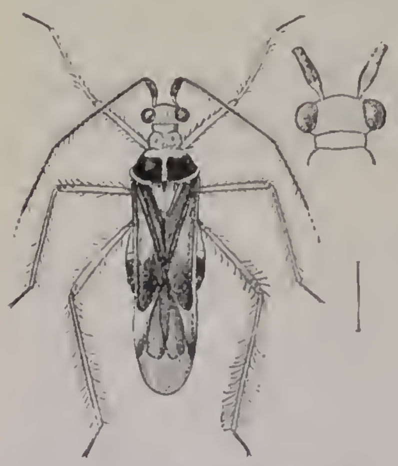

Fig. 286.—*Disphinctus humeralis.*

Length $8\frac{1}{2}$ millim.

Hab. Sikhim (*Brit. Mus.*). Ceylon; Kandy, Peradeniya (*Green*). Tenasserim; Myitta (*Doherty*).—Malacca (*Brit. Mus.*); Siamese Malay States (*Annaldale & Robinson*).

Recorded as attacking cinchona at Mungphu in Sikhim (*Atkinson*).

1399. **Disphinctus politus**, *Walk.* (Monalonion) *Cat. Het.* vi, p. 163 (1873).

Disphinctus formosus, *Kirk. J. Bomb. N. H. Soc.* xiv, p. 295, pl. A (p. 46), f. 10, pl. C, f. 2 (1902); *Green, Entomologist,* 1901, p. 114, & p. 115, ff. 3 & 4 (eggs).

Dark shining ochraceous; antennæ (excluding basal joint), eyes, an irregularly-shaped spot at apex of corium before cuneus, and posterior tibiæ and tarsi, the first excluding base, black; abdomen beneath stramineous, a little infuscated at apex; body finely pilose; antennæ (excluding basal joint) and the legs longly pilose.

Var. *a.* Posterior tibiæ ochraceous, concolorous.

Length $8\frac{1}{2}$ to 11 millim.

Hab. Assam; Margherita (*Brit. Mus*); Kangra Valley (*Dudgeon*). Ceylon; Peradeniya, Kandy, Badulla (*Green*). Tenasserim; Myitta (*Doherty*).—Borneo, Sarawak (*Brit. Mus.*).

Mr. E. E. Green ('Entomologist,' 1901, p. 114) describes this

species as abundant in Ceylon on plants of *Cuphea jorullensis*. The young shoots are badly punctured and wilted, and the plants completely disfigured, the damage being done chiefly by the immature insects. Mr. Green also informs me that *D. politus* punctures leaves of *Solanum* sp., young leaves and shoots of *Peperonia* sp., young leaves of common guava (*Psidium guyava*), and young leaves of *Acalypha* sp.

1400. **Disphinctus dudgeoni**, *Kirk. J. Bomb. N. H. Soc.* xiv, p. 296 (1902).
Gen. ? sp. ?, *Dudg. Ind. Mus. Notes*, iii (v) p. 37 (1894).

♂. "Orange-red; abdomen broad and concave on the upper side, unmarked; head transverse, short; eyes black and prominent; rostrum paler orange, thickened for the basal third of its length, rather short, reaching just beyond the coxæ of the anterior legs when folded beneath; antennæ almost the same length as the whole body, first joint thickened, short, reddish, second long, third shorter than second, fourth short, all three black; pronotum and scutellum unmarked, orange-red, the former lengthened; legs pale, semihyaline yellow, barred with orange-red on the femora; the bases of the tibiæ also reddish; hemelytra with the corium orange-red, with a triangular black spot on the costa, membrane fuscous hyaline with a discal nervure orange."

♀. "Only differs from the male in being slightly paler in colour and in the underside of the abdomen having a curved corneous, black, shining ovipositor, as in *Helopeltis theivora*."

Length $9\frac{1}{2}$ to 10 millim.

Hab. Sikhim and Bhutan, from 1500 to 5000 feet (*G. C. Dudgeon*).

Punctures leaves of plants of the genus *Mæsa* (*M. montana*, *M. ramentacea*, and *M. indica*), occurring in the Darjiling district.

I have not seen this species.

1401. **Disphinctus elegans**, sp. n.

♀. Head, pronotum, scutellum, cuneus, rostrum and sternum orange-red; corium reddish-brown; membrane pale shining fuscous; abdomen beneath stramineous; base, apex, and lateral margins (above and beneath) to abdomen, antennæ and eyes black; posterior legs stramineous, apical areas of femora, basal areas of tibiæ, and the tarsi black; anterior and intermediate legs mutilated in specimen described; corium thickly greyish pilose; legs and antennæ longly pilose.

Length, ♀, $8\frac{1}{2}$ millim.

Hab. Tenasserim; Myitta (*Doherty*).

1402. **Disphinctus mæsarum**, *Kirk. J. Bomb. N. H. Soc.* xiv, p. 295 (1902).

Head, antennæ, and pronotum black; central area of head between eyes, basal margin, collar, and sometimes anterior lobe

of pronotum, and scutellum ochraceous or stramineous; lateral margins of scutellum black; corium dull ochraceous or stramineous, basal and apical areas piceous; cuneus stramineous; membrane pale fuliginous; body beneath and legs ochraceous or stramineous, apices of posterior femora blackish; antennæ and legs longly pilose, extreme base of first joint of antennæ luteous.

Var. *a*. Sternum, apex of abdomen, bases and apices of posterior femora, posterior tibiæ and the tarsi black.

Length $6\frac{1}{2}$ to $8\frac{1}{2}$ millim.

Hab. Ceylon; Pundaluoya (*Green*). Tenasserim; Myitta (*Doherty*).

Punctures leaves of *Mæsa indica* (*Green*).

Genus **MALALASTA**, nov.

Type, *M. superba*, Dist.

Distribution. Tenasserim.

Body elongate; head subglobose, vertically deflected in front; eyes of moderate size, almost touching anterior margin of pronotum; antennæ inserted in front of anterior margins of eyes, first joint about as long as head and pronotum together, slightly thickened at apex, second joint about half as long again as first; rostrum reaching the intermediate coxæ; pronotum with an anterior collar, behind which are two transverse callosities centrally united, posterior area strongly punctate, with a faint central longitudinal ridge; scutellum rather large, subtriangular, its apex broad; hemelytra subhyaline; legs somewhat long and slender; cuneus long and slender.

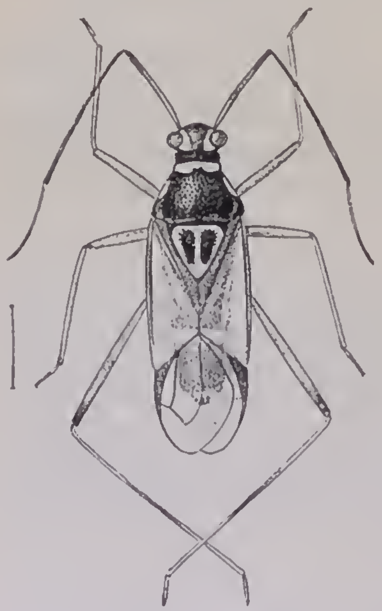

Fig. 287.—*Malalasta superba.*

1403. **Malalasta superba**, sp. n.

Head, pronotum, and scutellum black; an elongate spot at inner margin of each eye, the transverse callosity and an elongate spot on the lateral margins of pronotum, margins, a central fascia and apex of scutellum, head beneath (excluding a central black fascia), acetabula, coxæ, legs, and abdomen beneath stramineous or very pale ochraceous; abdomen with black transverse spots on each side, anterior margin of penultimate segment and some apical spots black; apices of posterior femora, extreme bases and a central annulation to posterior tibiæ, the antennæ, and venation to hemelytra fuscous-brown; extreme base of first joint of antennæ and third joint (excluding apex) stramineous; pronotum

and scutellum, excluding pale markings, coarsely punctate; apex of scutellum broad and a little tumid.

Length 8 millim.

Hab. Tenasserim; Myitta (*Doherty*).

Genus HYALOPEPLUS.

Hyalopeplus, *Stål, Öfv. Vet.-Ak. Förh.* 1870, p. 670.

Type, *H. vitripennis*, Stål.

Distribution. Oriental and Australasian Regions.

Body oblong; head triangular, with eyes much broader than anterior margin of pronotum; eyes strongly prominent; antennæ inserted in front of eyes, basal joint moderately incrassated, subequal in length to head, second joint nearly four times as long as first; rostrum reaching the posterior coxæ; pronotum slightly shorter than broad, narrowed anteriorly, basal margin twice as broad as anterior margin, twice transversely impressed, near anterior margin forming a sort of collar, and again before middle, the last constriction being waved; scutellum tumid, the disk subdepressed, longitudinally sulcate; hemelytra parallel, smooth, hyaline, corium with cuneus reaching apex of abdomen; membrane with two cellular areas; legs of moderate length, posterior femora moderately incrassated.

1404. **Hyalopeplus vitripennis**, *Stål* (Capsus), *Freg. Eug. Resa, Ins.* p. 255 (1859); *id. Öfv. Vet.-Ak. Förh.* 1870, p. 671.
Capsus lineifer, *Walk. Cat. Het.* vi, p. 122 (1873).
Hyalopeplus lineifer, *Kirk. Tr. E. S.* 1902, p. 253.

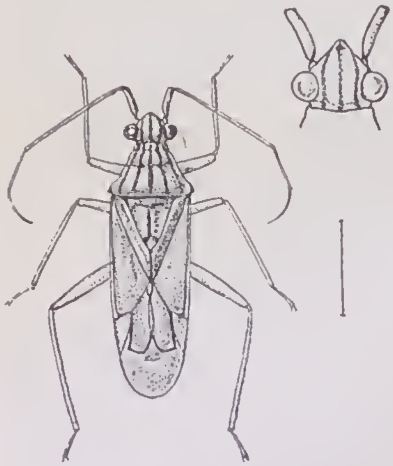

Fig. 288.—*Hyalopeplus vitripennis.*

Luteous; head with three, and pronotum with five longitudinal lines either red or black; scutellum with a central line similarly variable in colour; basal margin of pronotum black; antennæ luteous, sometimes (excluding basal joint) fuscous; hemelytra pale ochraceous hyaline, the venation piceous; apex of scutellum more or less castaneous.

Length 9 to 10 millim.

Hab. Assam; Margherita (*Doherty*). Ceylon (*Lewis*). Tenasserim; Myitta (*Doherty*).—Malacca (*Brit. Mus.*), Java, Philippines. North Queensland (*Dodd*).

1405. **Hyalopeplus spinosus**, sp. n.

Allied to *H. vitripennis*, Stål, but differing principally in the

pronotal angles, which are distinctly spinously produced, and with their apices a little directed backward; the fourth joint of antennæ is pale luteous with its apex piceous; the pronotum has a subbasal transverse black marginal line, but the longitudinal fasciæ are indistinct, only three in number, the central one continuous, indistinct and fuscous, the other two red, but not extending beyond the anterior area.

Length 9 millim.

Hab. Assam; Margherita (*Doherty*).

Division *PHYTOCORARIA.*

Phytocoraria, *Reut. Bih. Vet.-Ak. Handl.* iii (1) p. 6 (1875); *id. Acta Soc. Faun. & Flora Fenn.* i, p. 35 (1875).

In this division the head is neither longitudinally sulcated nor impressed, the brachial vein to the hemelytra is distinct, the cuneus elongately triangular but the fracture not profoundly exhibited; the pronotum very obsoletely punctate, sometimes transversely rugose.

Synopsis of Genera.

A. Antennæ with the first joint thickened and shorter than pronotum; second joint incrassate at apex .... PARACALOCORIS, p. 449.

B. Antennæ with the first joint as long as pronotum or very little shorter; second joint not incrassate at apex.

a. Body pubescent, first joint sparingly hirsute .... PHYTOCORIS, p. 448.

b. Body not pubescent, first joint not hirsute .... CALOCORIS, p. 451.

Genus **PHYTOCORIS.**

Phytocoris, *Fallén* (part), *Hem. Suec.* p. 83 (1829); *Herr.-Sch. Wanz. Ins.* iii, p. 36 (1835); *Fieb. Eur. Hem.* pp. 65, 258 (1861); *Reut. Bih. Vet.-Akad. Handl.* iii (1) p. 10 (1875).

Type, *P. ustulatus*, Herr.-Sch., a Palæarctic species.

Distribution. Probably of universal distribution.

Body subelongate; first joint of the antennæ sparingly hirsute on its inner margin, and about as long as the pronotum; rostrum extending beyond the base of the abdomen; body opaque, somewhat densely pubescent; eyes large, prominent; pronotum trapezoidal, with a distinct anterior collar; scutellum tumid; hemelytra more or less parallel; membrane pale fuliginous, irrorated with paler coloration; legs elongate, the posterior pair longest, with the femora moderately thickened; tibiæ setose.

1406. **Phytocoris crinitus**, sp. n.

Fig. 289.—*Phytocoris crinitus.*

Brownish-ochraceous, thickly tomentose; lateral and posterior margins of the pronotum, a central basal fascia to scutellum, clavus, corium, and cuneus fuscous; corium with central and apical paler suffusions; membrane pale fuliginous mottled with grey, the veins fuscous; body beneath fuscous, coxæ and legs pale greyish-brown, apical areas of the femora mottled with fuscous, tibiæ annulated with fuscous; antennæ brown, speckled and annulated with greyish, first joint as long as pronotum, second about twice as long as first; rostrum considerably passing posterior coxæ.

Length 4½ millim.

Hab. Ceylon; Peradeniya (*Green*).

1407. **Phytocoris stoliczkanus**, *Dist. Tr. E. S.* 1879, p. 124; *id. Sec. Yark. Miss., Rhynch.* p. 10, f. 6 (1879).

Uniform pale ochraceous; head with a **V**-shaped mark consisting of small transverse striæ commencing from near base of antennæ, of which the first joint is almost as long as head and pronotum together; pronotum with two slightly raised transverse callosities extending across and occupying the anterior area; scutellum with the base somewhat raised and gibbous, a waved transverse cordate line near base, and a faint pale longitudinal median line near apex; hemelytra sparingly clothed with a few minute blackish hairs; membrane with bright prismatic reflections.

Length 6 millim.

Hab. Punjab; Murree (*Stoliczka*).

Genus PARACALOCORIS.

Paracalocoris, *Dist. Biol. Centr.-Am., Rhynch.* i, p. 263 (1883).

Type, *P. jurgiosus*, Stål, a Neotropical species.

Distribution. Neotropical, Ethiopian, and Oriental Regions.

Body above distinctly pilose; antennæ with the basal joint incrassated, shorter than the pronotum, thickly clothed with fine long hairs; second joint about twice as long as first, its apex distinctly incrassate, third and fourth slender, and together subequal to or longer than the second, fourth generally a little longer than the third; pronotum distinctly subgibbous, the width at posterior angles being about three times that of anterior margin; rostrum reaching the intermediate coxæ. Pronotum usually with two discal subexcavated spots.

1408. **Paracalocoris burmanicus**, sp. n.

Head, pronotum, and scutellum ochraceous; head suffused with brownish on the lateral areas; pronotum with two central and two sublateral fuscous fasciæ united at base, and with two small transverse spots near anterior margin and two rounded discal spots black; scutellum with a broad fuscous fascia on each lateral area; corium fuscous, thickly ochraceously pubescent; cuneus castaneous, its apex and a spot near inner angle black; membrane pale fuliginous and subhyaline, the venation and some apical linear marks black; body beneath ochraceous; a central and lateral spots to mesosternum and a sublateral series of small spots to abdomen black; femora ochraceous, with their apices broadly black; tibiæ and tarsi black, the first with a central ochraceous annulation; antennæ piceous, extreme base of second joint and bases of third and fourth joints stramineous.

Fig. 290.
Paracalocoris burmanicus.

Length 6 millim.

Hab. Burma; Karennee (*Fea*).

1409. **Paracalocoris erebus**, sp. n.

Black, opaque, finely ochraceously pubescent; head with a small black spot in front of eyes, which are greyish-white; pronotum with two transverse black spots on anterior area and two obscure spots on disk; cuneus castaneous, its base and apex black; membrane subhyaline, its venation and a linear subapical spot black, its apical margin fuliginous; body beneath brownish-ochraceous, sternum piceous; a lateral spot to mesosternum and a sublateral series of small spots to abdomen black; legs black, bases of femora and central annulation to tibiæ stramineous; antennæ piceous, base of third joint stramineous.

Length $4\frac{1}{2}$ millim.

Hab. Burma; near Rangoon.

1410. **Paracalocoris lanarius**, sp. n.

Dull pale ochraceous, greyishly pilose; antennæ, eyes, two discal spots to pronotum, a small spot at each basal angle of scutellum, and small spots at base and apex of cuneus black; basal half of second joint of antennæ and third joint (excluding base) purplish-red, extreme base of second and base of third joint greyish-white; head and collar of pronotum uniformly greyishly pilose; pronotum greyishly pilose, with two central curved fuscous fasciæ; scutellum

with the disk glabrous; corium and clavus strongly greyishly-pilose; membrane very pale fuliginous, with venation black; body beneath and legs pale ochraceous, the legs darkest; mesonotum (slightly, perhaps accidentally, exposed in typical specimen) exhibiting two large discal fuscous spots; abdomen beneath with a submarginal segmental series of linear fuscous spots.

Length 4 millim.

Hab. Ceylon; Peradeniya (*Green*).

Genus **CALOCORIS**.

Calocoris, *Fieb. Wien. ent. Monatsb.* Bd. ii, p. 305 (1858); *id. Eur. Hem.* pp. 65, 251 (1861); *Reut. Bih. Vet.-Ak. Handl.* iii, 1, p. 11 (1875); *Saund. Hem. Het. Brit. Islds.* p. 238 (1892).

Subg. Closterotomus, *Fieb. Eur. Hem.* pp. 65, 261 (1861).

„ Deræocoris, *Dougl. & Scott, Brit. Hem.* p. 315 (1865).

Type, *C. lineolatus*, Goeze, a Palæarctic species.

Distribution. Probably nearly universally distributed, though not yet recorded from the Ethiopian Region.

Body elongate, head inserted to the eyes; rostrum extending beyond the intermediate but not passing the posterior coxæ; antennæ variable, with the basal joint shorter than the pronotum or about the same length; pronotum convexly deflected anteriorly, with a narrow raised collar; scutellum moderately tumid; hemelytra with the margins parallel or sometimes slightly rounded; tibiæ setose.

411. **Calocoris lineolatus**, *Goeze* (Cimex) *Ent. Beytr.* ii, p. 267 (1778); *Reut. Act. Soc. Sc. Fenn.* xv, p. 262 (1888), et syn.

Lygæus chenopodii, *Fall. Mon. Cim.* p. 74 (1808).

Calocoris chenopodii, *Dist. Sec. Yark. Miss., Rhynch.* p. 10 (1879); *Saund. Hem. Het. Brit. Islds.* p. 243 (1892).

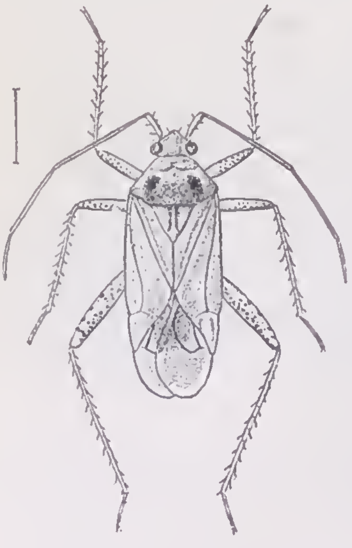

Fig. 291.—*Calocoris lineolatus.*

Pale greenish-ochraceous; pronotum with its posterior disk frequently infuscated and often with two black spots; scutellum with two central black lines; extreme lateral margins of the corium, and usually a discal fascia to corium, dark brown; legs speckled with black; cuneus stramineous; membrane pale fuliginous, with the veins piceous; antennæ robust, second, third and fourth joints about equally thick; pronotum much narrowed anteriorly; tibiæ somewhat longly setose.

Length $8\frac{1}{2}$ to 9 millim.

Hab. Kashmir; Sind Valley (*Stoliczka*).—Widely distributed in the Palæarctic Region and recorded from Turkistan.

1412. **Calocoris dohertyi**, sp. n.

Pale ochraceous, apex of second joint of antennæ, eyes, basal margin of head, and a small spot near each posterior angle of pronotum black; membrane very pale fuliginous; first joint of antennæ subequal in length to pronotum, second almost twice as long as first; head moderately tumid between eyes; pronotum with some very obscure transverse striations; corium very finely and obscurely pilose; the membrane in some positions exhibits pearly greenish lustre: tibiæ rather longly setose.

Length 7 millim.

Hab. Tenasserim; Myitta (*Doherty*).

1413. **Calocoris stoliczkanus**, *Dist. Tr. Ent. Soc.* 1879, p. 124; *id. Sec. Yark. Miss., Rhynch.* p. 10, f. 7 (1879).

Ochraceous clouded with brown, and sparingly palely flavescently pilose; antennæ brownish, second, third, and fourth joints with their apices piceous, first joint robust, shorter than pronotum, second somewhat suddenly thickened towards apex, third and fourth very slender, fourth not much more than half the length of third; cuneus somewhat paler in colour than corium, brownish and pilose at base and with a small piceous spot at apex; membrane pale fuscous clouded with brown; body beneath pale obscure ochraceous, finely palely pilose and with a somewhat obscure stigmatal series of small brown spots; legs mutilated in specimens described; pronotum faintly angulose; scutellum somewhat distinctly strigose.

Length 8 millim.

Hab. Punjáb; Murree (*Stoliczka*).

1414. **Calocoris angustatus**, *Leth. Ind. Mus. Notes*, iii, no. 2, p. 90 (1893) fig.

Very elongate; dull flavescent; antennæ fulvous, first joint robust, as long as the head, second joint very long, slender, four times as long as first, third, fourth and fifth joints equal, slender, equal in length to the first joint; pronotum trapeziform, punctulate, posterior angles somewhat prominent, slightly obtusely acute, anterior angles obtuse, anteriorly with a distinct collar, the apical area for about one-third from anterior margin robustly callose; hemelytra flavescent, punctate, sparingly fulvous-pubescent; clavus and sutural portion of corium roseate, sometimes concolorous; legs concolorous, tibiæ armed externally with ten or eleven black spinules; apices of tarsi fuscous. (*Lethierry.*)

Length 6 to 7 millim.

Hab. Madras.

Stated to injure cholum (*Sorghum vulgare*) in the South Arcot District of the Madras Presidency.

Division —— ?

Genus **MEVIUS**, nov.

Type, *M. lewisi*, Dist.

Distribution. Ceylon.

Somewhat broadly ovate, narrowed anteriorly and posteriorly; head somewhat long, narrowed anteriorly, not quite so long as width between eyes, which touch the anterior margin of the pronotum; antennæ with first joint moderately incrassate towards apex, shorter than head, second joint rather stout, about three times as long as first, third about as long as first; rostrum apparently reaching the posterior coxæ (type a carded specimen); pronotum tumid at base, deflected anteriorly, the lateral areas obliquely deflected, posterior margin in front of scutellum strongly concavely sinuate, and there slightly narrower than anterior margin, between posterior angles about twice as wide as anterior margin where there is a narrow anterior collar; scutellum small, tumid, basal margin strongly convex; clavus broader posteriorly than anteriorly; corium outwardly rounded, its marginal area moderately laminate; cuneus almost as broad as long; cuneal fracture indistinct; membrane with a single oblong cell; legs of moderate length, femora incrassate, tarsi with the last joint much the longest.

I cannot locate this genus in any division with which I am acquainted. It appertains to the *Phytocoraria* and *Capsaria*. I place it between the two divisions, and refrain from making a new one on a single genus.

1415. **Mevius lewisi**, sp. n.

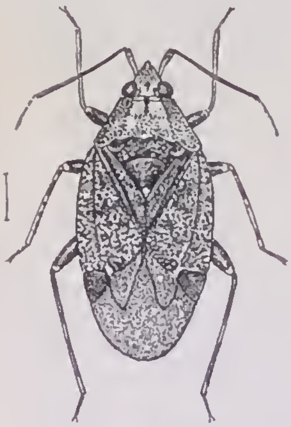

Fig. 292.—*Mevius lewisi.*

Head and pronotum ochraceous, fuscously punctate; base of pronotum (its surface injured in type) and scutellum piceous speckled with ochraceous, the apex of the scutellum stramineous; corium piceous-brown speckled with flavous; cuneus dark castaneous, finely speckled with flavous, its apex and a spot at inner angle flavescent; membrane fuliginous, thickly covered with minute paler spots; antennæ and legs castaneous; base of first and the two apical joints of antennæ, apices of tibiæ, a central annulation to posterior tibiæ, mottlings to intermediate tibiæ, and the tarsi pale ochraceous.

Length 5 millim.

Hab. Ceylon (*Lewis*).

Division *CAPSARIA*.

Capsaria, *Reut. Bih. Vet.-Ak. Handl.* iii, 1, p. 6 (1875).

Reuter has subsequently amalgamated his previous division *Phytocaria* with the *Capsaria*, but I think unnecessarily. The *Capsaria* may always be distinguished by the more profound cuneal fracture as well as by more apparent though superficial characters.

This may be taken as the largest and most typical division of the Capsidæ, and its representatives are universally distributed.

Synopsis of Genera.

A. Corium not or indistinctly punctate.
  a. Pronotum not or very indistinctly punctate.
    a. Eyes large; pronotum about half as long as broad; first joint of antennæ about as long as head .... LYGUS, p. 454.
    b. Eyes small; pronotum more than half as long as broad; first joint of antennæ longer than head .... LUCITANUS, p. 465.
  b. Pronotum coarsely punctate .... HERMOTINUS, p. 462.
B. Corium longly pilose.
  a. Antennæ slender; body elongately oval. PŒCILOSCYTUS, p. 458.
  b. Antennæ with apex of second joint incrassate and pilose; body broadly ovate .... GISMUNDA, p. 463.
C. Corium more or less strongly punctate.
  a. Pronotum remotely and obsoletely punctate .... LIOCORIS, p. 463.
  b. Pronotum strongly punctate.
    a. Antennæ slender.
      a'. Head narrow, longer than broad at base .... CAMPTOBROCHIS, p. 460.
      b'. Head very broad, as broad as long .... BOTHRIOMIRIS, p. 469.
    b. Antennæ with apex of second joint moderately incrassate; head somewhat narrow .... DERÆOCORIS, p. 465.
    c. Antennæ with second joint incrassate from near middle; head broad .... CAPSUS, p. 468.

Genus **LYGUS**.

Lygus, *Hahn, Wanz. Ins.* i. p. 147 (1831); *Fieb. Eur. Hem.* pp. 68, 272 (1861); *Reut. Acta Soc. Fauna & Flora Fenn.* i, p. 61 (1875).
Lygocoris, *Reut. Bih. Vet.-Akad. Handl.* iii, 1, p. 16 (1875).
Orthops, *Fieb. Wien. ent. Monatsb.* ii, p. 311 (1858).

Type, *L. pabulinus*, Linn., a Palæarctic and Nearctic species.
Distribution. Probably universal.

Oblong, ovate, slightly pubescent; head with the vertex moderately elevated, eyes moderately exserted and placed close to

anterior margin of pronotum; antennæ with the second joint very slightly incrassate towards apex; pronotum anteriorly strongly convexly deflected, anterior disk with transverse elevated glabrous calli, basal margin convexly rounded; hemelytra longer than abdomen, cuneus broad at base; posterior tarsi with the second joint a little longer than the first.

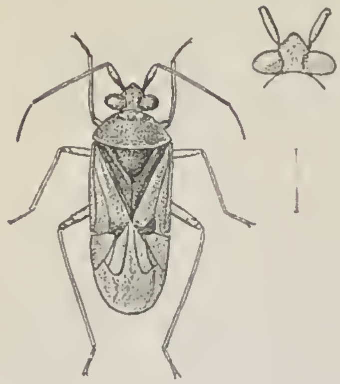

Fig. 293.—*Lygus sordidus.*

A. *Pronotum unicolorous.*

1416. **Lygus sordidus**, sp. n.

Dull yellowish-white; scutellum, clavus, and a spot on apex of corium and base of cuneus fuscous-brown; base of first joint and apical area of second joint of antennæ piceous; apical area of intermediate femora slightly, and apical area of posterior femora strongly suffused with reddish-castaneous; first joint of antennæ about as long as head, second about three times as long as first; pronotum obscurely punctate; hemelytra finely pubescent.

Length 5½ millim.

Hab. Utakamand (*Atkinson*, *Brit. Mus.*). Ceylon (*Green*).

1417. **Lygus albescens**, sp. n.

Uniform dull creamy-white, third joint of antennæ infuscated (remainder mutilated in specimen described); pronotum somewhat distinctly punctate; first joint of antennæ scarcely longer than head, second rather more than twice the length of first; pronotum with an anterior transverse impression a short distance from frontal margin, defining a tumid area with a central glabrous callosity; above finely pubescent.

Length 6 millim.

Hab. Utakamand (*Atkinson Coll.*, *Brit. Mus.*).

1418. **Lygus decoloratus**, sp. n.

Very pale ochraceous, pronotum, scutellum, and lateral margins of corium paler with a slightly greenish tinge; membrane pale fuliginous mottled with some scattered fuscous markings; first joint of antennæ about as long as head, second about twice as long as first; hemelytra finely pubescent.

Length 5 millim.

Hab. Ceylon; Pundaluoya (*Green*).

The following note has been received from Mr. E. E. Green:—

"This species has recently appeared as a pest of the tea-plant in Bogawantalawa (6000 ft.). It punctures the young shoots and

causes them to wither. It also attacks *Verbena* and *Tropæolum* plants in the bungalow gardens. My correspondent reports that a bed of *Tropæolum* was completely ruined by the insects. I have found the egg embedded in the young stems of *Verbena* plants and in succulent shoots of tea. The egg is cylindrical, rounded at posterior extremity; it is embedded in a slightly diagonal position, the truncate extremity being flush with the surface of the plant. Length 0·90 millim."

1419. **Lygus viridanus**, *Motsch.* (Deræocoris) *Bull. Soc. Nat. Mosc.* xxxvi (2) p. 83 (1863).

Pale greenish; head, antennæ, rostrum, body beneath and legs pale ochraceous; apex of second joint and the third and fourth joints of antennæ, eyes, and apices of tarsi black; membrane pale greenish-brown; tibiæ and tarsi less ochraceous and more virescent than the femora; pronotum finely punctate.

Var. All the ochraceous markings replaced by a much more greenish tinge, giving the insect a somewhat unicolorous appearance.

Length 5 millim.

Hab. Ceylon (*Lewis & Green*).

I have received both the typical and varietal forms from Ceylon.

1420. **Lygus pubens**, sp. n.

Ochraceous; lateral marginal areas of the corium much paler in hue; clavus suffused with castaneous, two curved fuscous lines, united posteriorly, on posterior disk of corium; membrane very pale fuliginous, infuscated on apical area; antennæ piceous, second joint, excluding apex, ochraceous; pronotum very finely punctate.

Var. *a.* Scutellum, a broad transverse fascia at apex of corium, clavus, and a small spot at apex of cuneus piceous or black; first joint of antennæ ochraceous.

Length $3\frac{1}{2}$ to 4 millim.

Hab. Ceylon; Pundaluoya (*Green*).

B. *Pronotum with two obscure dark spots.*

1421. **Lygus immitis**, sp. n.

Greenish-ochraceous, thickly finely pilose; eyes and a small spot at apex of cuneus black; pronotum with the disk more palely virescent, with two very obscure central linear pale fuscous spots near base; scutellum with two central pale fuscous linear lines, diverging posteriorly; clavus and corium irregularly mottled with pale fuscous; membrane fuliginous, with pale virescent suffusions; posterior femora with pale brownish apical annulations; apex of rostrum and apices of tarsus piceous.

Length $4\frac{1}{2}$ to 5 millim.

Hab. Ceylon (*Lewis*); Pundaluoya (*Green*).

C. *Pronotum with two prominent black spots.*

1422. **Lygus catullus**, sp. n.

Head and pronotum pale ochraceous; eyes, extreme apex of head, and two spots on anterior area of pronotum black; scutellum and corium dark shining fuscous; two small basal spots and apex to scutellum, and basal and apical marginal spots to corium pale ochraceous; cuneus pale ochraceous with an inner fuscous spot; membrane very pale fuliginous, base irrorated with pale flavescent and fuscous; body beneath and legs pale ochraceous; a lateral spot to meso- and metasterna, and some transverse fasciæ and the apex to abdomen dark fuscous; pronotum very obsoletely finely punctate; scutellum (excluding apex) finely transversely striate; corium with some scattered pale flavescent hairs; antennæ pale ochraceous, extreme apex of first, apical half of second, and the third joint (excluding base) fuscous.

Length 4 millim.

Hab. Tenasserim; Myitta (*Doherty*).

D. *Pronotum with a central dark longitudinal fascia.*

1423. **Lygus biseratensis**, *Dist. Fasciculi Malayenses, Zool.* vol. i, p. 269, pl. xvi, ff. 11, 11 *a* (1903).

Pale obscure ochraceous, finely sericeous; apices of first, second, and fourth joints of antennæ, eyes, a submarginal anterior line and a central longitudinal fascia to pronotum black; cuneus fuscous-brown; first and fourth, and second and third joints of antennæ subequal in length.

Var. *a*. Scutellum and corium pale purplish-brown, the lateral margins of the last pale ochraceous.

Var. *b*. Scutellum and corium dark castaneous, the lateral margins of the last narrowly pale ochraceous; femora moderately infuscated.

Length 7 millim.

Hab. Ceylon; Kandy (*Green*). Burma; Mandalay (*Fea*).—Siamese Malay States.

E. *Species unknown to the writer.*

1424. **Lygus bengalicus**, *Reut. Ent. Tidskr.* v, p. 195 (1884).

Green, somewhat palely pubescent; head, antennæ, apices of femora, tibiæ, and tarsi more or less reddish-brown; apex of clypeus piceous; antennæ with about a third of basal joint and apex of second somewhat fuscous, frequently in the ♂ with the second joint totally fuscous; pronotum piceous, with a large anterior rounded greenish-livid spot in ♂, or sordidly greenish, with two submarginal broad stripes, sometimes broadly dilated posteriorly and before the basal margin confluent in ♀; hemelytra

with a fuscous spot at the interior apical angle of corium; membrane fuliginous, the cells immaculate or with their apices palely infuscated; a hyaline groove at apex of cuneus in ♂, or two semihyaline spots before the middle of the external margin in the ♀; apices of tarsi darkly fuscous; rostrum reaching posterior coxæ; hemelytra densely punctate.

Length $3\frac{1}{2}$ to 4 millim.

Hab. Bengal (*fide Reuter*).

I have not seen this species.

1425. **Lygus obtusus**, *Reut. Ent. Tidskr.* v, p. 196 (1884).

Dark green, somewhat glabrous, slightly punctate; eyes fuscous; clypeus, a band on the pleura of the prothorax, an apical stricture and medial basal margin of pronotum, a medial band to scutellum, all the claval sutures (interiorly broad), an apical spot to corium, apical margin to cuneus (interrupted medially), a common arcuated fascia to the apices of the cells and two spots on the external edge of membrane, another a little behind apex of cuneus and another situate behind middle fuscous; legs dark green, unspotted, tibiæ darkly spinulose, last joint of tarsus apically dark fuscous; rostrum reaching the intermediate coxæ; hemelytra slightly punctate.

Length, ♀, $3\frac{2}{3}$ millim.

Hab. Bengal (*fide Reuter*).

I have not seen this species.

Genus **PŒCILOSCYTUS**.

Pœciloscytus, *Fieb. Wien. ent. Monatsb.* ii, p. 311 (1859); *id. Eur. Hem.* pp. 68, 276 (1861); *Reut. Bih. Vet.-Ak. Handl.* iii, 1, p. 19 (1885); *id. Acta Soc. Faun. & Flora Fenn.* i, p. 80 (1875).
Subg. Charagochilus, *Fieb. Wien. ent. Monatsb.* iii, p. 309 (1859).
,, Systratiotus, *Dougl. & Scott, Brit. Hem.* p. 443 (1865).

Type, *P. unifasciatus*, Fabr., a Palæarctic and Nearctic species.

Distribution. Probably universally distributed.

Body oval, opaque or subopaque, above flavescently pilose; head nearly vertical, inner margins of eyes marked with testaceous pubescence; eyes moderately exserted; antennæ moderately slender, first joint not longer than head, second twice as long as first; rostrum reaching or only slightly passing intermediate coxæ; pronotum trapeziform, anteriorly convexly deflected, posterior margin truncate, not covering basal margin of scutellum, the disk densely punctate; cuneus very strongly fractured, its apex ferruginous or flavous.

1426. **Pœciloscytus longicornis**, *Reut.* (Charagochilus) *Ent. Tidskr.* v, p. 196 (1884).

Black, hemelytra and anterior collar to pronotum greyishly

pilose; a flavescent spot on apical margin of corium in front of cuneus, and the apex of cuneus also flavescent; antennæ long, first joint black, second about as long as posterior margin of pronotum, testaceous, with its apex black, third and fourth black, base of third flavescent: pronotum and scutellum rugulose; tibiæ pale ochraceous, their bases and apices and a central annulation to posterior pair black; membrane fuliginous, the basal cells a little darker with their margins flavescent.

Fig. 294.
Pœciloscytus longicornis.

Length $3\frac{2}{3}$ to 5 millim.

Hab. Calcutta (*Brit. Mus.*). Ceylon (*Green*). Nicobar Islands; Teressa (*fide Reuter*).—Tonkin.

1427. **Pœciloscytus consanguineus**, sp. n.

Allied to *P. longicornis*, Reut., but differing in being less greyishly pilose above; basal margin of pronotum, apex of scutellum, a small spot at apex of clavus, and basal angle of corium (somewhat broadly) ochraceous; femora pale ochraceous, their apical halves broadly annulated with castaneous; pronotum a little more convex and more deflected anteriorly; scutellum more tumid and distinctly transversely striate.

Length $3\frac{1}{2}$ millim.

Hab. Burma; Bhamo. Tenasserim; Myitta (*Doherty*).

1428. **Pœciloscytus pygmæus**, sp. n.

Black, hemelytra greyishly pilose; posterior margin of pronotum in front of base of corium, a small spot near base of lateral margin to corium, its inner margin beyond clavus (narrowly), and its apical margin before cuneus (broadly) ochraceous; apex of cuneus pale hyaline; membrane fuliginous, its basal cells piceous and margined with flavescent; antennæ piceous, basal half of second joint ochraceous; rostrum greyish-white, medially annulated with piceous, and reaching the posterior coxæ; legs piceous, femora broadly annulated near base with greyish-white, the apical halves of tibiæ, and tarsi excluding apices, greyish-white or very pale stramineous, apices of femora imperfectly annulated with brownish-ochraceous; pronotum, scutellum, and clavus very distinctly punctate.

Length $2\frac{2}{3}$ to 3 millim.

Hab. Ceylon; Peradeniya (*Green*).

1429. **Pœciloscytus capitatus**, sp. n.

♀. Piceous, greyishly pilose; head, antennæ, rostrum, posterior margin of pronotum, posterior lateral margin (narrowly) and

interior apical margin of corium, basal and lateral margins and apex of cuneus ochraceous; coxæ and legs pale flavescent, posterior femora annulated with castaneous on apical areas, spinules to tibiæ piceous; third and fourth joints of antennæ, excluding extreme bases, fuscous; membrane fuliginous, margins of the basal cells flavescent; abdomen beneath with the disk piceous, and less longly greyishly pilose than the lateral areas, on which there is a submarginal series of small black spots; rostrum passing the posterior coxæ.

Length, ♀, $5\frac{1}{2}$ millim.

Hab. Ceylon; Hambantota (*Green*).

Genus CAMPTOBROCHIS.

Camptobrochis, *Fieb. Wien. ent. Monatsb.* ii, p. 304 (1859); *id. Eur. Hem.* p. 248 (1861); *Reut. Bih. Vet.-Ak. Handl.* iii, 1, p. 20 (1875); *id. Acta Soc. Faun. & Flora Fenn.* i, p. 84 (1875).
Camptobrochys, *Fieb. Eur. Hem.* p. 64 (1861).

Type, *C. punctulatus*, Fall., a Palæarctic species.

Distribution. Nearctic, Palæarctic, and Oriental Regions.

Body oval, convex, shining, strongly punctate; head short, vertical; eyes large, exserted, touching anterior margin of pronotum; rostrum reaching or just passing the intermediate coxæ; antennæ with the basal joint not quite so long as head, second about twice as long as first or a little more than twice as long; pronotum convexly anteriorly deflected, strongly punctate, with a distinct transverse anterior callus, basal margin about twice as broad as anterior margin, truncate, oblique at lateral areas; corium with cuneus longer than abdomen; cuneal fracture profound; tibiæ spinulose.

A. *Corium, excluding lateral margins, almost uniformly punctate.*

1430. **Camptobrochis orientalis**, sp. n.

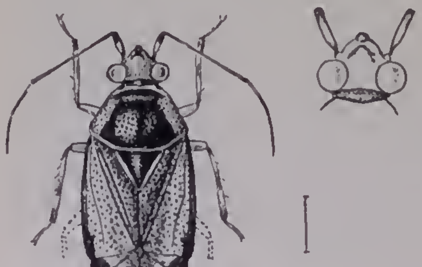

Fig. 295.—*Camptobrochis orientalis.*

Head pale ochraceous, its apex and basal margin black; pronotum black, its margins and lateral marginal areas ochraceous, the last brownly punctate; scutellum black, its lateral margins and apex ochraceous; corium and clavus black, the first with the whole discal area ochraceous; membrane very pale fuliginous and subhyaline; cuneus black, its inner angular area ochraceous; body beneath black, prosternum and legs ochraceous, legs annulated with fuscous;

antennæ piceous, bases of first, third, and fourth joints ochraceous; eyes greyish-white.

Length 5 millim.

Hab. Ceylon; Pundaluoya (*Atkinson, Brit. Mus.*).

1431. **Camptobrochis lutulentus**, sp. n.

Dark castaneous, shining; lateral margins of corium—widened posteriorly—and the legs pale ochraceous, the last somewhat obscurely annulated or suffused with fuscous; the pale lateral margins of corium traversed medially by a castaneous line; scutellum with an ochraceous spot near each basal angle; cuneus and membrane pale fuliginous, an inner streak and apex to the first, and cellular margins to the second, castaneous or fuscous-brown; eyes piceous; pronotum, clavus, and corium strongly punctate; basal joint and base of second joint of antennæ a little paler in hue; scutellum subglabrous; rostrum reaching the posterior coxæ.

Var. Much paler in hue; head, pronotum, and corium ochraceous, not castaneous, the corium with paler suffusions, or apparently exhibiting a subbasal and two discal paler elongate spots.

Length 4 millim.

Hab. Ceylon; Pundaluoya and Kandy (*Green*). Tenasserim; Thagata.

Allied to the Palæarctic species, *C. lutescens*, Schill. The variety is from Tenasserim.

1432. **Camptobrochis uniformis**, sp. n.

Head, antennæ, rostrum, pronotum and sternum pale ochraceous, the pronotum thickly, somewhat coarsely brownly punctate; eyes and apex of second joint of antennæ piceous, third and fourth antennal joints fuscous, base of third joint pale flavescent; scutellum pale castaneous, glabrous; corium brownish-ochraceous, thickly punctate, very finely pilose, the lateral margins pale ochraceous; cuneus pale fuscous, with an inner fuscous spot; membrane pale fuliginous; the veins darker, and the lateral and apical margins paler. Body and legs imperfectly seen owing to the typical specimen being in a carded condition.

Length 5 millim.

Hab. Burma; Katha.

B. *Disk of corium impunctate.*

1433. **Camptobrochis similis**, sp. n.

Pale ochraceous; eyes and apex of second joint of antennæ black, third and fourth antennal joints and apices of the tarsi fuscous; femora more or less mottled with darker ochraceous;

head glabrous; pronotum coarsely punctate, the anterior transverse callosity glabrous; scutellum glabrous; clavus thickly and coarsely punctate, corium with subclaval and sublateral punctures, the corium with a more or less distinct fuscous longitudinal streak; abdomen beneath with a central sublateral fuscous fascia; rostrum just passing the intermediate coxæ.

Var. Basal joint and base of second joint of antennæ fuscous.

Length 4 millim.

Hab. Ceylon (*Lewis*); Peradeniya (*Green*). Tenasserim; Myitta (*Doherty*).

Genus **HERMOTINUS**, nov.

Type, *H. signatus*, Dist.

Distribution. Tenasserim.

Somewhat broadly ovate; pronotum strongly punctate; corium impunctate, moderately pilose; head somewhat broad, anteriorly deflected; eyes very large and transverse, touching but projecting beyond the anterior margin of the pronotum; antennæ slender, first joint longer than head, second nearly three times the length of first; rostrum reaching the intermediate coxæ; pronotum with a narrow anterior collar, behind which are two transverse callosities, posterior margin more than twice the width of anterior margin, its lateral margins sinuate, the disk tumid; scutellum subtriangular, a little transversely foveate at base; hemelytra with the lateral margins somewhat ampliated, the cuneus a little longer than broad, the fracture distinct but not profound; legs of moderate length, the femora moderately incrassate, the tibiæ setose.

1434. **Hermotinus signatus**, sp. n.

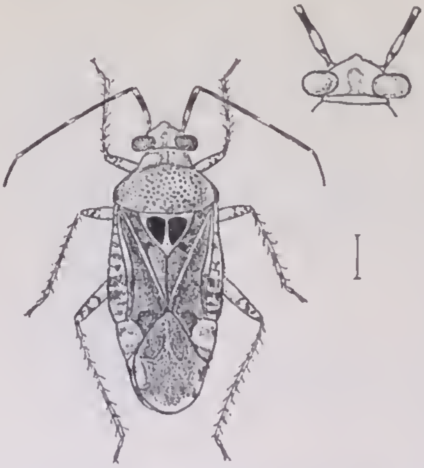

Fig. 296.—*Hermotinus signatus.*

Head, pronotum, and scutellum very pale ochraceous; eyes, a central basal fascia to head and the punctures to the pronotum brown; antennæ brown, annulated with stramineous; scutellum with two large discal oblong black spots; corium dark fuscous-brown, some blackish spots and suffusions on clavus; the lateral areas and cuneus pale semi-hyaline, with transverse fuscous fasciate spots, cuneus with the apex and transverse discal spot pale fuscous; membrane very pale fuliginous, piceous at base, the margins paler; legs pale ochraceous, annulated with fuscous; pronotum coarsely punctate, its

lateral margins longly pilose; corium longly pilose at claval margin.

Length $4\frac{1}{2}$ millim.

Hab. Tenasserim; Myitta (*Doherty*).

Genus **GISMUNDA**, nov.

Type, *G. chelonia*, Dist.

Distribution. Sikhim.

Body broadly ovate; head strongly deflected in front of eyes, which about touch the anterior margin of the pronotum; antennæ with the first joint a little thickened, about as long as head, second about twice as long as first, its apical area distinctly incrassate and pilose, third and fourth joints together almost as long as second; rostrum about reaching the intermediate coxæ; pronotum short, transverse, very strongly deflected, coarsely punctate, lateral margins oblique, basal margin truncate, the lateral angles subprominent; scutellum triangular, moderately tumid, transversely striate; hemelytra flavescently pilose, their lateral margins convex, corium with cuneus shorter than abdomen, membrane passing abdominal apex; legs of moderate length, tibiæ setose.

1435. **Gismunda chelonia**, sp. n.

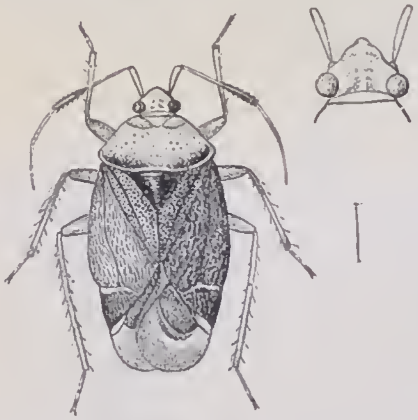

Fig. 297.—*Gismunda chelonia.*

Head and pronotum ochraceous, eyes and basal margin of pronotum, interrupted at centre, piceous; scutellum black, corium castaneous, flavescently pilose; cuneus very dark castaneous, its anterior margin and apex flavescent; membrane fuliginous, margins of cell broadly ochraceous; antennæ ochraceous, apex of second joint broadly black; body beneath black; prosternum and legs ochraceous.

Length $4\frac{1}{2}$ to $5\frac{1}{2}$ millim.

Hab. Sikhim; Mungphu (*Atkinson Coll., Brit. Mus.*).

Genus **LIOCORIS**.

Liocoris, *Fieb. Wien. ent. Monatsb.* ii, p. 309 (1858); *id. Eur. Hem.* pp. 67, 270 (1861); *Reut. Bih. Vet.-Akad. Handl.* iii, 1, p. 20 (1875); *id. Act. Soc. Sc. Fenn.* xxiii, no. 2, p. 45 (1898).

Type, *L. tripustulatus*, Fabr., a Palæarctic species.

Distribution. Palæarctic and Oriental Regions.

Body oval, convex above, glabrous, shining, pronotum remotely and obsoletely punctate; beneath very slightly pubescent; head

about as long as broad; eyes somewhat strongly exserted, almost touching anterior margin of pronotum; rostrum reaching the posterior coxæ; antennæ with the second joint shorter than the basal margin of the pronotum, third and fourth joints together longer than the second; pronotum with the posterior about twice as broad as anterior margin; corium more or less punctate.

1436. **Liocoris myittæ**, sp. n.

Ochraceous; apical half of second joint and the third and fourth joints of antennæ, two large rounded spots at anterior margin and two (obscure) at posterior margin of pronotum, two rounded spots at base of scutellum, clavus, a large angulated transverse spot at apex of corium, and a large spot at inner basal angle of cuneus black; membrane pale fuliginous mottled with ochraceous; femora reddish-ochraceous; tibiæ and tarsi pale fuscous; apices of femora obscurely annulated with fuscous; apices of tibiæ black; abdomen beneath with a sublateral series of small fuscous spots.

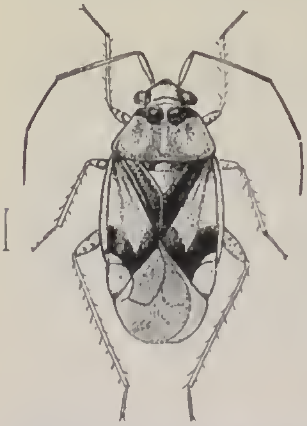

Fig. 298.—*Liocoris myittæ.*

Length 4 millim.

Hab. Tenasserim; Myitta (*Doherty*).

1437. **Liocoris formosus**, sp. n.

Black; head (excluding eyes) and pronotum (excluding basal margin) ochraceous; a large apical spot to scutellum, an elongate spot at base, and a transverse spot at apex of corium, and apex of cuneus flavescent; membrane fuliginous mottled with pale fuscous; antennæ piceous, basal third of second joint, basal half of third joint, and extreme base of fourth joint ochraceous; body beneath and legs black; head beneath and lateral areas of prosternum reddish-castaneous; rostrum, anterior coxæ, anterior femora (excluding apices), a broad central annulation to anterior tibiæ, and numerous annulations to intermediate and posterior tibiæ flavescent; above shining, corium very obscurely and sparingly punctate.

Length $3\frac{1}{2}$ millim.

Hab. Tenasserim; Myitta (*Doherty*).

1438. **Liocoris partitus**, *Walk.* (Capsus) *Cat. Het.* vi, p. 119 (1873).

Very pale luteous; antennæ (excluding basal joint), eyes, clavus, extreme basal margin of scutellum, lateral and apical margins of corium, the first strongly widened towards apex, apex of cuneus, central lobe to deflected head, and disk of mesosternum black; disk of abdomen beneath, and a submarginal series of small spots,

piceous; membrane fuliginous, with two paler spots on the lateral margins; head and anterior margin of pronotum darker luteous; rostrum reaching the posterior coxæ, its apex black.

Length 6 millim.

Hab. "North Hindostan" (*Boyes, Brit. Mus.*).

Genus **LUCITANUS**, nov.

Type, *L. punctatus*, Kirby.

Distribution. Ceylon.

Subovate; head somewhat long, moderately deflected before eyes, first joint of antennæ considerably longer than head and a little thickened, second joint much longer than first and thickened on apical area, third and fourth joints short, slender, third a little longer than fourth; rostrum about reaching the posterior coxæ; pronotum tumid, deflected and narrowed anteriorly, lateral margins a little rounded, basal margin slightly concave in front of scutellum and thence oblique to lateral angles; scutellum large, subtriangular, about as broad as long; clavus very long, extending almost to base of membrane; lateral margins of corium a little convex; cuneus much broader than long; legs of moderate length, posterior femora thickened; tibiæ setose.

1439. **Lucitanus punctatus**, *Kirby* (Leptomerocoris), *J. Linn. Soc., Zool.* xxiv, p. 108 (1891).

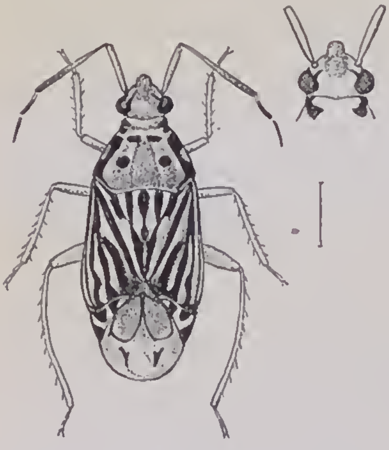

Fig. 299.—*Lucitanus punctatus.*

Pale ochraceous; head and pronotum shining; eyes, lateral margins (broken anteriorly), two anterior contiguous transverse discal spots and two rounded widely-separated central spots to pronotum, and longitudinal fasciæ to scutellum and corium, black: membrane very pale fuliginous, subhyaline, the venation and two posterior discal angulate lines black; antennæ with the apex of the second joint fuscous, third and fourth joints black, base of third stramineous.

Length 5 to $6\frac{1}{2}$ millim.

Hab. Ceylon; Tangalla (*Green*).

Genus **DERÆOCORIS.**

Deræocoris, *Kirschb. Jahr. V. Nat. Herz. Nassau,* Heft x, p. 208 (1855); *Stål, Hem. Afr.* iii, p. 20 (1865); *Reut. Act. Soc. Sc. Fenn.* xxiii, no. 2, p. 18 (1898), et syn.

Macrocapsus, *Reut. Öfv. Finsk. Soc. Förh.* xxi, p. 55 (1879).

Chilocrates, *Horv. Termész. Füzetek*, xii, p. 39 (1889).
Shana, *Kirk. Entomologist*, 1902, p. 315.

Type, *D. olivaceus*, Fabr., a Palæarctic species.

Distribution. Probably almost universally distributed.

Body oval, above shining, rarely pilose, excepting head moderately punctate; head with somewhat faint indications of a longitudinal impression which does not extend through the basal area, eyes touching anterior margin of pronotum; antennæ finely pilose, the last two joints together shorter than the second, apex of second joint moderately incrassate, first joint about as long as head; rostrum reaching the intermediate or posterior coxæ; pronotum with a narrow anterior collar, the basal nearly three times broader than the anterior margin, posteriorly strongly convex; scutellum moderately tumid; legs of ordinary length, posterior femora moderately incrassated, tibiæ setose.

The identity of *Shana*, Kirk., with *Chilocrates*, Horv., is evident from the description of each; I have seen the type of *Chilocrates*, and prefer to treat it as a section of *Deræocoris*.

1440. **Deræocoris patulus**, *Walk.* (Capsus) *Cat. Het.* vi, p. 120 (1873).
Chilocrates lenzii, *Horv. Termész. Füzetek*, xii, p. 39 (1889).
Shana ravana, *Kirk. Entomologist*, 1902, p. 316.

Black, shining, finely punctate; head, antennæ, rostrum, anterior area of pronotum, prosternum and legs ochraceous; apex of second joint of antennæ broadly black; bases of posterior femora black; rostrum reaching the posterior coxæ; extreme apex of head sometimes black.

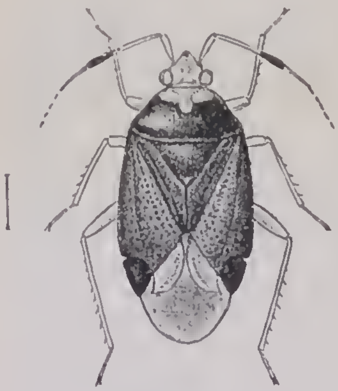

Fig. 300.
Deræocoris patulus.

Var. *a.* Pronotum, excluding narrow basal area, ochraceous.

Var. *b.* Pronotum with an anterior black spot behind each eye, and with the basal black margin almost obliterated.

Var. *c.* Pronotum black, its collar and a central anterior linear spot ochraceous; femora black, tibiæ and tarsi ochraceous, bases and apices of tibiæ and apices of tarsi black.

Var. *d. lenzii*, Horv., *supra*. Resembling var. *c*, but disk of head black; legs black, a subapical annulation to anterior tibiæ, and first and second joints of the anterior tarsi, flavescent; posterior legs mutilated in type.

Length 4 to 5 millim.

Hab. Kashmir (*Budapest Mus.*). "North Hindostan" (*Boyes, Brit. Mus.*). Sikhim; Kurseong (*Calc. Mus.*), Mungphu (*Atkinson, Brit. Mus.*). Burma; Karennee (*Fea*).

Dr. Horváth has kindly forwarded to me the type of his *Chilo-*

crates lenzii for comparison. I have not seen the *Shana ravana*, Kirk., but from the description of both genus and species there can be little doubt as to its identity.

1441. **Deræocoris variabilis**, sp. n.

Uniform pale ochraceous; apical area of second joint of antennæ black; membrane pale fuliginous mottled with greyish; cuneus more or less piceous.

Above very finely punctate, rostrum reaching the posterior coxæ.

Var. *a*. Scutellum black; sometimes with a piceous spot near apex of corium.

Var. *b*. Resembling var. *a*, but with four black spots to pronotum—two on each side.

Var. *c*. Resembling var. *b*, but with a large irregular fasciate-like black spot on disk of corium.

Var. *d*. Resembling var. *c*, but pronotum without the four black spots, its basal margin being more or less broadly black.

Length 4½ to 5 millim.

Hab. Sikhim; Mungphu (*Atkinson, Brit. Mus.*), Kurseong (*Calc. Mus.*). Shillong (*Brit. Mus.*).

The five forms, as detailed above, are representative of the species; more or less intermediate links have also passed through my hands.

1442. **Deræocoris rufus**, sp. n.

Shining, reddish-ochraceous; head, second joint of antennæ and apices of tarsi black; third joint of antennæ stramineous, its apex piceous; membrane pale fuliginous; above, excluding head, finely punctate; rostrum imperfectly seen, owing to specimen described being in a carded condition.

Length 5½ millim.

Hab. Sikhim; Mungphu (*Atkinson, Brit. Mus.*).

1443. **Deræocoris ornandus**, sp. n.

Brilliant, shining; pronotum, scutellum, cuneus, body beneath and posterior legs black; corium and lateral areas of abdomen beneath sanguineous; head, antennæ, a broad subbasal and a narrow subapical annulation to posterior femora, and posterior tibiæ (excluding base) ochraceous; anterior and intermediate legs mutilated in specimen described; apical area of head and apical half of second joint of antennæ black; membrane fuliginous with greyish mottlings; above finely punctate; rostrum mutilated in specimen described.

Length 5 millim.

Hab. Sikhim; Mungphu (*Atkinson, Brit. Mus.*).

Genus CAPSUS.

Capsus, *Fabr. Syst. Rhyng.* p. 241 (1803); *Reut. Act. Soc. Sc. Fenn.* xxiii, no. 2, p. 13 (1897), et syn.
Rhopalotomus, *Fieb. Wien. ent. Monatsh.* Bd. ii, p. 307 (1858).

Type, *C. ater*, Linn., from the Palæarctic and Nearctic Regions.
Distribution. Nearctic, Palæarctic, and Oriental Regions.

Oblong-ovate, robust, above rugosely punctate; scutellum rugose; head broad, with eyes broader than basal half of pronotum; rostrum incrassate, first joint strongly dilated; antennæ inserted near the internal apex of eyes, the last two joints together shorter than second joint, which is gradually apically incrassate; legs of moderate length, tibiæ setose.

1444. **Capsus crœsus**, sp. n.

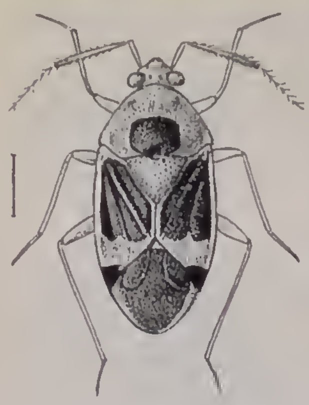

Fig. 301.—*Capsus crœsus.*

Pale sanguineous or reddish-ochraceous; second joint of antennæ (excluding base), eyes, a large somewhat rounded posterior discal spot to pronotum, corium (excluding basal angle, lateral margin and apical area), cuneus, and membrane black; tibiæ palely fuscous; pronotum coarsely punctate and laterally pilose, with an anterior levigate callosity; scutellum moderately tumid, punctured on basal area; corium finely punctate, its apical area somewhat longly pilose, its lateral margins a little reflexed; second joint of antennæ strongly pilose.

Length $5\frac{1}{2}$ to 6 millim.

Hab. Burma; Palon (*Fea*).

1445. **Capsus remus**, sp. n.

Black or very dark chocolate-brown; extreme base of first joint of antennæ, an elongate apical spot to scutellum, an elongate discal spot near apex of corium, and the legs sanguineous; tibiæ sometimes palely fuscous or even black; pronotum coarsely punctate, with an anterior transverse callosity which is centrally sulcate; scutellum tumid, transversely foveate at base, obscurely wrinkled; corium more finely punctate than pronotum; membrane bronzy-brown; second joint of antennæ strongly pilose.

Length 5 to $5\frac{1}{2}$ millim.

Hab. Burma; Karennee (*Fea*).

1446. **Capsus pegasus**, sp. n.

Black; basal joint of antennæ, a small discal spot near apex of corium, basal joint of rostrum, coxæ, legs, and disk of abdomen beneath ochraceous; rostrum (excluding basal joint) piceous; tibiæ palely fuscous; pronotum coarsely punctate, with an anterior callosity which is somewhat centrally sulcate; scutellum tumid, transversely foveate at base, obscurely transversely wrinkled; corium coarsely punctate; membrane fuliginous; second joint of antennæ strongly pilose.

Length 5 millim.

Hab. Ceylon (*Lewis*).

1447. **Capsus darsius**, sp. n.

Black; basal joint of antennæ, head beneath, legs, and some transverse fasciæ to abdomen beneath testaceous; second joint of antennæ longly pilose; pronotum strongly punctate, with an obscure anterior callosity which is strongly centrally sulcate; scutellum tumid, transversely foveate at base, punctate and obscurely transversely wrinkled; corium thickly punctate; membrane fuliginous.

Length $4\frac{1}{2}$ millim.

Hab. Burma; Karennee (*Coll. Dist.*).

Genus BOTHRIOMIRIS.

Bothriomiris, *Kirk. Tr. Ent. Soc.* 1902, p. 270.

Type, *B. simulans*, Walk.

Distribution. Oriental Region.

Oblong, broad, remotely pilose; posterior area of pronotum, scutellum, corium, and sternum thickly strongly punctate; head broad, strongly deflected anteriorly, short as seen above, eyes large, touching the anterior margin of the pronotum but projecting beyond it; antennæ long, second joint longer than pronotum; pronotum without an anterior collar, not distinctly transversely impressed, the anterior area tumid, centrally sulcate, its posterior lateral margins oblique, the posterior area thickly strongly punctate, centrally carinate, the base truncate, oblique towards lateral angles; scutellum somewhat large and subtriangular; cuneus about as broad as long; interior cell of membrane posteriorly angulate; rostrum about reaching the posterior coxæ; femora short, moderately incrassate.

Kirkaldy states that this genus will probably form a new division. I place it here, provisionally, in the *Capsaria*.

1448. **Bothriomiris simulans**, *Walk.* (Capsus) *Cat. Het.* vi, p. 125 (1873).

Bothriomiris marmoratus, *Kirk. Tr. E. S.* 1902, p. 271.

Dark fuscous-brown, finely, sparingly, palely pilose; a longitudinal fascia on inner side of each eye, anterior area of pronotum (more or less marked with fuscous), a central longitudinal fascia to posterior area of pronotum and scutellum, some waved reticulate marks at apex of corium, basal markings to membrane, basal annulations to femora and apical annulations to tibiæ stramineous; legs reddish-brown; posterior area of pronotum and the corium coarsely punctate; the scutellum finely transversely striate.

Fig. 302.—*Bothriomiris simulans.*

Length 6 to 7 millim.

Hab. Burma; Karennee (*Fea*).—Malay Peninsula; Perak, Singapore.

1449. **Bothriomiris testaceus**, sp. n.

Dark testaceous; a central fascia on apical half of scutellum and an elongate discal spot near apical margin of corium pale testaceous; membrane dark fuscous, the veins a little paler; head anteriorly and lateral margins of pronotum longly pilose; pronotum and corium coarsely punctate; scutellum transversely striate; legs more or less mutilated in the typical carded specimen described; third and fourth joints of antennæ slender and fuscous; scutellum distinctly transversely foveate at base.

Length 5 millim.

Hab. Burma; Karennee.

Division *TERATODELLARIA.*

Teratodellaria, *Reut. Bih. Vet.-Ak. Handl.* iii, 1, p. 5 (1875).
Fulviaria, *Uhler, Check-list Hem. Het. N. Amer.* p. 19 (1886); *Reut. Ann. Soc. Ent. Fr.* 1892, p. 391.

This division, as I understand and use it here, is primarily distinguished by the longly produced horizontal head.

Reuter, in his synopsis, places it before the *Miraria*, but according to the arrangement pursued here, and in agreement with the views of Uhler, I place it after the *Capsaria*.

Reuter has sank his name of the division in favour of that of the subsequent one proposed by Uhler, but I have already (*ante*, p. 413) explained my reasons for not following that course.

ROYAL ALBERT DOCKS, E.

Genus **TYRAQUELLUS**, nov.

Type, *T. albofasciatus*, Motsch.
Distribution. Ceylon.

Elongate; head moderately long and somewhat triangular anteriorly; eyes inserted near anterior margin of pronotum; antennæ with the first joint incrassate and about as long as head, second about three times as long as first; rostrum reaching the posterior coxæ; pronotum nearly twice as broad at base as long, with a very narrow anterior collar, behind which it is distinctly constricted, gradually deflected from base, lateral margins concavely sinuate; mesonotum a little exposed; scutellum small, subtriangular; hemelytra with their margins nearly straight and subparallel; membrane longly passing abdominal apex; cuneus a little longer than broad; legs more or less mutilated in all the specimens examined.

1450. **Tyraquellus albofasciatus**, *Motsch.* (Leptomerocoris?) *Bull. Soc. Nat. Mosc.* xxxvi (2) p. 86 (1863).

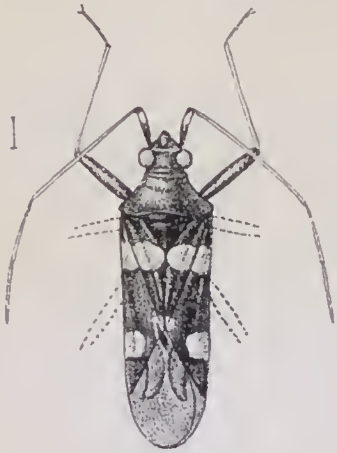

Fig. 303.
Tyraquellus albofasciatus.

Black or piceous; antennæ ochraceous, first joint black with an apical ochraceous annulation; eyes granulate, silvery-white; corium and clavus crossed by a transverse macular fascia near apex of scutellum, and corium with a large apical spot and a smaller one near apex of clavus, white; cuneus sometimes castaneous; membrane fuliginous; colour semi-opaque; pronotal posterior angles obtusely subprominent; anterior legs with the coxæ and femora piceous, the tibiæ and tarsi ochraceous, remaining legs mutilated in four specimens examined.

Length 3 millim.

Hab. Ceylon; Yatiyantota (*Green*).

1451. **Tyraquellus maculatus**, sp. n.

Piceous; corium with a lateral spot outside centre of clavus and a larger spot at apex white; membrane fuliginous; first and second joints of antennæ ochraceous, base of first joint piceous, remainder mutilated; rostrum ochraceous; femora piceous, tibiæ dark castaneous; eyes with silvery-white lustre.

Length $3\frac{1}{3}$ millim.

Hab. Ceylon; Yatiyantota (*Green*).

Division *BRYOCORARIA.*

Bryocoraria, *Reut. Bih. Vet.-Ak. Handl.* iii, 1, p. 6 (1875); *id. Ann. Soc. Ent. Fr.* 1892, p. 393.

Eccritotarsaria, *Berg* (*Reut.*), *Hem. Argent. Add.* p. 81 (1884).
Thausmastomiraria, *Kirk. J. Bomb. N. H. Soc.* xiv. p. 56 (1902).

In this division the cubital vein to the hemelytra extends from the base to beyond the middle and is profoundly impressed; the last joint of the tarsi is incrassate; the membrane possesses one long areole or cell.

The *Bryocoraria* include some heterogeneous generic forms, and the two genera here enumerated appertain to the section divided by Berg as *Eccritotarsaria*, founded on the Neotropical genus *Eccritotarsus*.

Synopsis of Genera.

A. Membranal cell not reaching apex: cuneus of moderate size .... MERTILA, p. 472.
B. Membranal cell reaching apex; cuneus very long, almost reaching apex of membrane .... THAUMASTOMIRIS, [p. 473.

Genus MERTILA.

Mertila, *Dist. A. M. N. H.* (7) xiii. p. 113 (1904).

Type, *M. malayensis*, Dist.

Distribution. Burma and Malayana.

Elongately oval; head rather long and depressed in front of insertion of antennæ, of which the first joint is shorter than head and attenuated at base, second joint much longer than first, it and the remaining joints pilose; rostrum not quite reaching the intermediate coxæ; pronotum sometimes as long as broad, with an anterior collar which has its anterior and posterior margins carinate, subimpressed or distinctly constricted before middle, the depression including two transverse callosities; scutellum small, subtriangular, callous, foveate at base; hemelytra much longer than abdomen; membranal cells long, triangular; legs moderately short and slender, apical joint of tarsi incrassate.

1452. **Mertila malayensis**, *Dist. A. M. N. H.* (7) xiii. p. 114 (1904).

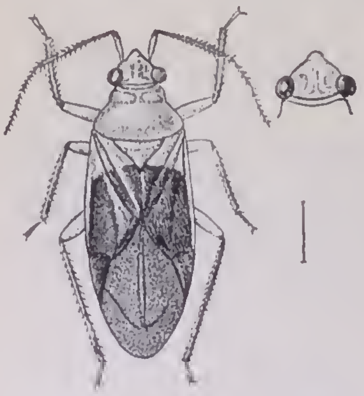

Fig. 304.—*Mertila malayensis.*

Orange-red; apex of first and the second joint of antennæ, legs, apex of rostrum, corium (excluding basal area), cuneus, membrane, extreme apices of femora, the tibiæ, tarsi, and sometimes abdomen beneath, indigo-black; head with a distinct central ridge, and a broad foveation on inner side of eyes: pronotum a little hollowed between the anterior callosities; upper surface very finely and obscurely pilose: tibiæ finely setose.

Length 5 to 6 millim.

Hab. Burma; Bhamo (*Fea*).—Singapore (*Brit. Mus.*).

Genus THAUMASTOMIRIS.

Thaumastomiris, *Kirk. J. Bomb. N. H. Soc.* xiv, p. 56 (1902).

Type, *T. sanguinalis*, Kirk.

Distribution. Ceylon.

Elongately ovate; head vertically depressed in front of eyes (transverse as seen from above), which are large, almost touching, but projecting beyond the anterior margin of the pronotum, broadly transversely sulcate near basal margin; antennæ with first joint longer than head, second a little longer than pronotum; rostrum almost reaching the posterior coxæ; pronotum with a narrow anterior collar, immediately behind which are two transverse callosities, lateral margins a little sinuate, anterior margin moderately concavely sinuate, posterior margin twice the breadth of anterior; scutellum transversely impressed near base and longitudinally sulcate on apical area*; hemelytra considerably longer than abdomen; cuneus much longer than broad, curved round to near apex of membrane, which has a single long cell; legs of moderate length, femora a little thickened; apical joint of tarsi thickened.

1453. **Thaumastomiris sanguinalis**, *Kirk. J. Bomb. N. H. Soc.* xiv, p. 57, pl. A, f. 6, & pl. B, f. 4 (1902).

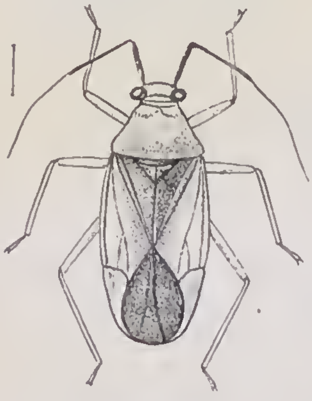

Fig. 305.
Thaumastomiris sanguinalis.

Sanguineous; antennæ and eyes dark fuscous; membrane pale fuscous, with the venation darker; pronotum very finely granulate, corium more finely granulate and very obscurely shortly pilose; tarsi fuscous.

Length 5 millim.

Hab. Ceylon; Peradeniya (*Green*). Frequents *Crinum asiaticum* (*E. E. Green*).

Kirkaldy writes: "The types ♂ & ♀ have been placed in the British Museum," but they are not to be found in that collection.

Division *CYLLOCORARIA.*

Cyllocoraria, *Reut.* (part.) *Bih. Vet.-Akad. Handl.* iii, 1, p. 6 (1875); *id. Act. Soc. Sc. Fenn.* xiii, p. 567 (1884).
Heterotomaria, *Kirk. Faun. Hawaiiensis,* iii, pt. ii, p. 132 (1902).

Since Reuter founded this division in 1875 he has considerably subdivided it. One of these new divisions (*Dicypharia*)† I have

* Kirkaldy, in his diagnosis of the genus, writes "scutellum not sulcate." He probably described an imperfect specimen.

† Renamed *Campyloneuraria* (Kirk. Faun. Hawaiiensis, iii, pt. ii, p. 138, 1902).

failed to adequately understand, at least sufficiently to give diagnostic characters, and it is, therfore, probably included here in the *Cyllocoraria*.

The body is usually elongate, the pronotum anteriorly more or less distinctly constricted, the femora seldom incrassated. The division possesses a somewhat common generic facies, though *Sthenaridea*, like the Palæarctic genus *Heterocordylus*, has a foreign aspect, but Reuter himself has located the species in his *Cyllocoraria*, and we necessarily follow his lead.

Synopsis of Genera.

A. Antennæ long, slender.
  a. Body broad, ovate .... STHENARIDEA, p. 474.
  b. Body more or less elongate.
    a. Head globose; pronotum anteriorly spined .... NICOSTRATUS, p. 475.
    b. Head transverse; pronotum not spined.
      a'. Eyes longly projecting beyond anterior pronotal angles; corium normal .... CYRTORRHINUS, p. 476.
      b'. Eyes not longly projecting beyond anterior pronotal angles; corium with an apical cellular process .... ZANCHIUS, p. 477.
B. Antennæ short and thickened........... GALLOBELICUS, p. 477.

Genus STHENARIDEA.

Sthenaridea, *Reut. Ent. Tidskr.* v, p. 197 (1884).

Type, *S. pusilla*, Reut.

Distribution. Oriental Region.

Body ovate, shining; head one-third narrower than base of pronotum, in front of eyes regularly deflected, and on each side of them obliquely impressed; eyes large, minutely granulate, almost touching the anterior lateral angles of pronotum; rostrum almost reaching the apices of the posterior coxæ; antennæ longer than half the body including hemelytra, first joint not passing apex of clypeus, last two joints together much longer than the second joint; pronotum short, trapeziform, lateral margins nearly straight, anterior callosities barely discernible, without an apical stricture, and with no transverse sulcation; scutellum somewhat large, subtriangular; hemelytra longer than abdomen, cuneus shorter than broad, the fracture profound; membrane with two areolets or cells.

Dr. Reuter remarks that this genus is allied to *Heterocordylus*, Fieb., but in superficial appearance more closely to *Sthenarus*, Fieb., belonging to the division *Plagionatharia*. However, Reuter has placed it in his division *Cyllocoraria*, where we naturally leave it.

1454. **Sthenaridea pusilla**, *Reut. Ent. Tidskr.* v, p. 198 (1884).

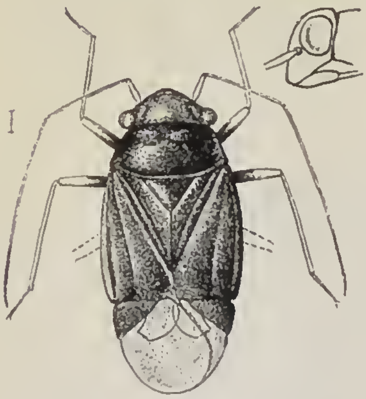

Fig. 306.—*Sthenaridea pusilla.*

Black, fuscous or reddish-black, shining, slightly griseous pubescent; second joint of antennæ excluding basal fourth, rostrum, apices of anterior and intermediate femora, the tibiæ and tarsi ochraceous; apex of last joint of antennæ fuscous; tibiæ finely spinulose; membrane fuliginous.

Var. Second and third joints of antennæ sometimes wholly ochraceous.

Length, ♀, $2\frac{1}{2}$ millim.

Hab. Bengal (*Copenhagen Mus.*).

By the kindness of Dr. Meinert I have been enabled to figure the type of this species.

Genus **NICOSTRATUS**, nov.

Type, *N. balteatus*, Dist.

Distribution. Ceylon.

Body elongate; head globose, almost circular; eyes moderately large but not exserted, adpressed to head; antennæ with the first joint shorter than head, second a little incrassated towards apex and almost as long as lateral margin of corium (excluding cuneus), third a little longer than fourth; rostrum passing the anterior coxæ; pronotum globosely tumid, deflected anteriorly, where it is strongly constricted, and behind a narrow anterior collar armed with two strong divergent spines, posterior margin slightly concavely sinuate; scutellum developed in a strong robust upright tuberculous spine; clavus distinctly raised and deflected on each side; corium with the lateral margins concavely sinuate, widened and tumid at apices; cuneus posteriorly deflected, a little longer than broad; membrane considerably passing the abdominal apex; legs moderately long and slender.

Fig. 307.—*Nicostratus balteatus.*

1455. **Nicostratus balteatus**, sp. n.

Black, shining; basal annulation to third joint of antennæ, a transverse fascia crossing corium and clavus behind scutellum, bases of intermediate and posterior femora, posterior acetabula, and a

subapical annulation to tibiæ white; tarsi (excluding apices) and basal joint of antennæ pale ochraceous; membrane very dark opaque, fuliginous; glabrous, shining, eyes opaque; posterior angles of pronotum subprominent and subacutely deflected.

Length $4\frac{1}{2}$ millim.

Hab. Ceylon (*Lewis*).

Genus CYRTORRHINUS.

Cyrtorhinus, *Fieb. Wien. ent. Monatsb.* ii, p. 313 (1858).
Cyrtorrhinus, *Reut. Act. Soc. Sc. Fenn.* xiii, p. 379 (1884); *Öfv. Finsk. Soc. Förh.* xliv, p. 178 (1902).
Tytthus, *Fieb. Wien. ent. Monatsb.* viii, p. 82 (1864).
Sphyracephalus, part., *Dougl. & Scott, Brit. Hem.* p. 349 (1865).
Periscopus, *Bredd. Deutsch. ent. Zeit.* 1896, p. 106.
Breddiniessa, *Kirk. Wien. ent. Zeit.* xxii, p. 13 (1903).

Type, *C. caricis*, Fall., a Palæarctic species.

Distribution. Palæarctic and Oriental Regions.

Elongately ovate; head vertical, transverse, short; eyes large, contiguous to the anterior margin of the pronotum but longly projecting beyond it; rostrum reaching the intermediate coxæ; antennæ long, slender, first joint moderately thickened, second shorter than the last two joints together; pronotum trapeziform, basal rather more than twice the width of anterior margin, lateral margins strongly sinuate; legs moderately long, posterior tarsi with the second and third joints equally long.

1456. **Cyrtorrhinus lividipennis,** *Reut. Ent. Tidskr.* v, p. 199 (1884).

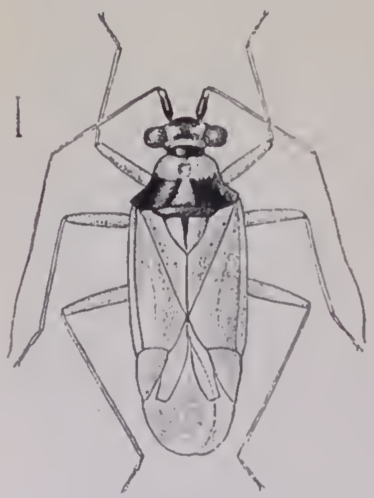

Fig. 308.
Cyrtorrhinus lividipennis.

Black; base of head confluent with a large spot on inner side of each eye, antenniferous tubercles and apex of first joint of antennæ, rostrum, anterior callosities and a broad central fascia to posterior area of pronotum, a large lateral spot on each side of scutellum, the hemelytra, body beneath and legs flavescent: a lateral sternal spot black.

Length $2\frac{3}{4}$ to $3\frac{1}{2}$ millim.

Hab. Ceylon; Yatiyantota (*Green*). Burma; Rangoon (*Fea*). Great Nicobar (*Copenhagen Mus.*).

An apparently abundant species in Ceylon, where Mr. E. E. Green found it coming to light. By the courtesy of Prof. Meinert I have examined the type.

Genus **ZANCHIUS**, nov.

Type, *Z. annulatus*, Dist.

Distribution. Ceylon.

Elongately ovate; head broad, deeply channelled near inner margins of eyes, in front of which it is vertically deflected, eyes moderately exserted and situate nearer to the insertion of antennæ than base of head; rostrum reaching the posterior coxæ; antennæ long, basal joint about as long as head, second nearly four times longer than first, third and fourth almost subequal in length; pronotum somewhat strongly constricted before middle, lateral margins nearly straight, basal margin sinuate, mesonotum exposed; scutellum subtriangular; corium with a distinct cell-like process at apex; cuneus longer than broad; legs somewhat long and slender, posterior femora moderately thickened.

1457. **Zanchius annulatus**, sp. n.

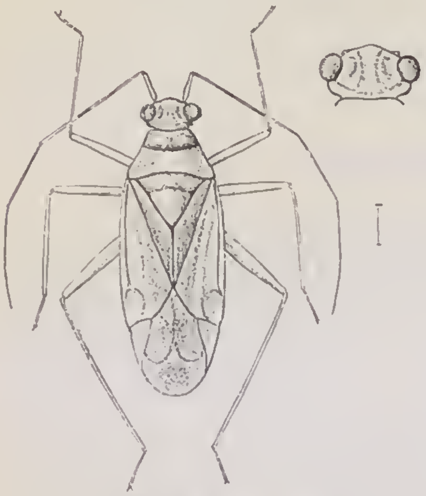

Fig. 309.—*Zanchius annulatus.*

Stramineous; eyes, two annulations to second joint of antennæ, the whole of third and fourth joints, and the apices of the tarsi fuscous; head deeply channelled near inner margins of eyes; anterior area of pronotum tumid; corium, cuneus and membrane a little paler than other parts of upper surface; lateral margins of corium a little reflexed; hemelytra very finely tomentose.

Length $4\frac{1}{2}$ millim.

Hab. Ceylon; Peradeniya (*Green*).

Genus **GALLOBELICUS**, nov.

Type, *G. crassicornis*, Dist.

Distribution. Oriental Region.

Elongate; head robust, vertically deflected in front; eyes large, inserted about midway between base of head and insertion of antennæ; antennæ short, robust, first joint slightly shorter than head, second a little more than twice as long as first, third about as long as second; rostrum about reaching the intermediate coxæ; pronotum narrowed anteriorly, with a distinct anterior collar, transversely constricted before the middle, with a distinct central longitudinal sulcation; mesonotum exposed; scutellum subtriangular, a little tumid; hemelytra with the lateral margins straight, cuneus much

longer than broad; membrane considerably passing abdominal apex; legs of moderate length and slender.

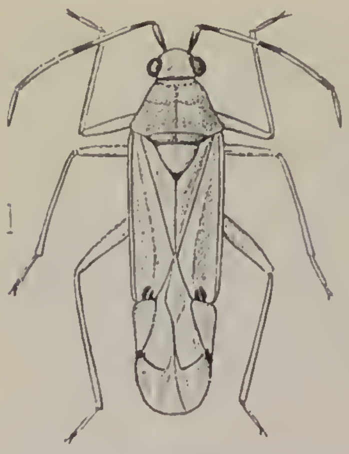

Fig. 310.
Gallobelicus crassicornis.

1458. **Gallobelicus crassicornis,** sp. n.

Stramineous; eyes, basal joint of antennæ excluding apex, base and apex of second joint, apex of scutellum, a spot at apex of corium, a similar spot at apex of cuneus, and extreme bases of tibiæ black; third and fourth joints of antennæ fuscous; above finely tomentose; pronotum finely and obscurely punctate.

Length 3 millim.

Hab. Bor Ghát (*Dixon*). Tenasserim; Myitta (*Doherty*).

Division ——?

Genus **ARMACHANUS**, nov.

Type, *A. monoceros*, Dist.

Distribution. Ceylon and North-west Australia.

Body elongate; head robust, long, not sulcate, the eyes nearer apex than base, with an apical spinous protuberance; antennæ robust, the first joint about as long as head from base to apex of frontal protuberance, second joint about twice as long as first; rostrum just passing the anterior coxæ; pronotum elongate, strongly constricted before middle, whence to apex its lateral margins are roughly dentate, the posterior area tumid, the base uncovered; scutellum carinately gibbous; hemelytra long, the clavus long, almost vertically raised inwardly; lateral margins of corium sinuate, a little widened and tumidly raised posteriorly; cuneus almost as broad as long, the fracture acute; legs long and slender.

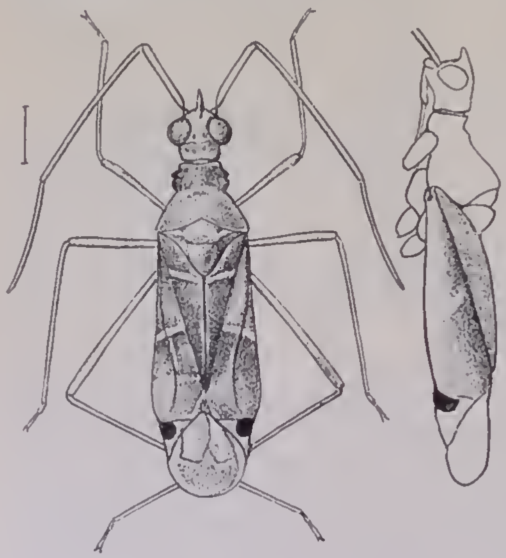

Fig. 311.—*Armachanus monoceros.*

This genus clearly represents a distinct division, and I have recently described a second species from N.W. Australia. At present its greatest affinity is with *Nicostratus* (*antè*, p. 475).

1459. **Armachanus monoceros**, sp. n.

Pale brownish-ochraceous; a transverse linear white fascia crossing clavus near apex of scutellum, and an oblique similar fascia near middle of corium; scutellum, clavus, and central area of corium darker in hue; cuneus with a large prominent basal black spot; membrane very pale fuliginous; eyes slaty-grey; body beneath and legs unicolorous.

Length 6 millim.

Hab. Ceylon; Yatiyantota (*Green*).

Division *LABOPARIA*.

Laboparia, *Reut. Act. Soc. Sc. Fenn.* xiii, p. 567 (1884).
Halticaria, *Kirk. Faun. Hawaiiensis,* iii, pt. ii, p. 139 (1902).

In this division the pronotum is without a transverse constriction; the head broad; rostrum very robust; and the posterior coxæ placed somewhat close together and remote from the lateral margin of the corium.

Synopsis of Genera.

A. Antennæ longer than body .... HALTICUS, p. 479.
B. Antennæ much shorter than body.
  a. Broad; lateral margin of corium convex; cuneal fracture very profound .... BILIA, p. 480.
  b. Elongate; lateral margin of corium parallel; cuneal fracture indistinct .... BERTA, p. 481.

Genus HALTICUS.

Halticus, *Hahn, Wanz. Ins.* i, p. 113, pl. 18, ff. A–D (1831); *Burm. Handb.* ii (1) p. 277 (1835); *Fieb. Eur. Hem.* pp. 69 & 281 (1861); *Reut. Act. Soc. Sc. Fenn.* xxiii, p. 17 (1897), et syn.
Astemma (part.), *Amy. & Serv. Hém.* p. 284 (1843).
Halticocoris, *Dougl. & Scott, Brit. Hem.* p. 478 (1865).

Type, *H. apterus*, Linn., a Palæarctic and Nearctic species.

Distribution. Nearctic, Neotropical, Palæarctic, and Oriental Regions. Probably more widely distributed, though unrecorded.

Broadly subovate; head short, broad, laminately flattened posteriorly and a little produced above the anterior margin of the pronotum; eyes large, touching pronotum; antennæ long, slender, longer than the body; rostrum robust, reaching the intermediate coxæ; pronotum short, broad, tumid at basal area, deflected anteriorly; scutellum of moderate size, subtriangular; hemelytra convexly deflected on each side, the cuneus and membrane posteriorly deflected; posterior femora strongly incrassate; tibiæ spinously setose.

1460. **Halticus minutus**, *Reut. Ent. Tidskr.* v, p. 197 (1884).

I

Fig. 312.—*Halticus minutus.*

Black, shining, above somewhat pubescent; first, second, basal area of third, and base of fourth joint of antennæ, apices of femora, tibiæ and tarsi very palely flavescent; apices of tarsi black; second joint of antennæ about equal in length to the lateral margin of the corium, its apex frequently black; third and fourth joints (base excepted) fuscous; pronotum obsoletely transversely strigose.

Length $1\frac{1}{2}$ to $1\frac{2}{3}$ millim.

Hab. Ceylon; Peradeniya (*Green*).—Singapore (*fide Reuter*). Cochin-China.

Mr. E. E. Green informs me that the species simulates a Halticid beetle, and leaps in the same way. It punctures the leaves of a species of *Ipomœa*. Prof. Giard (C. R. Soc. Biol. (n. s.) iv. pp. 79–82, 1892) has described its injurious action in Cochin-China.

Genus **BILIA**, nov.

Type, *B. fracta*, Dist.

Distribution. Ceylon.

Broadly subovate; head broad, strongly deflected in front of eyes, which touch the anterior margin of the pronotum; antennæ with the basal joint very short, second at least twice as long as first, subequal in length to third, second and third setose; rostrum short, reaching the anterior coxæ; pronotum broad, a little deflected and laminate on each side, somewhat strongly pilose, the anterior area behind head glabrous, beyond which it is slightly impressed, but not transversely constricted; scutellum small, strongly transversely striated, depressed on each side; corium convexly laminately produced; clavus obliquely suberect, almost at right angles with corium; cuneus a little longer than broad, cuneal fracture exceedingly profound; membrane longly passing the abdominal apex; legs of moderate size.

I

Fig. 313.—*Bilia fracta.*

1461. **Bilia fracta**, sp. n.

Black, strongly palely pilose; extreme apex of head brownish-ochraceous; antennæ, rostrum and legs pale stramineous; membrane pale fuliginous, its basal area piceous; pronotum (excluding glabrous area behind head) finely transversely striate; corium finely punctate; scutellum transversely, somewhat rugosely striate.

Length $1\frac{1}{2}$ millim.

Hab. Ceylon; Peradeniya (*Green*).

Genus BERTA.

Berta, *Kirk. J. Bomb. N. H. Soc.* xiv, p. 57 (1902).

Type, *B. lankana*, Kirk.
Distribution. Ceylon.

Pilose; head very small, almost roundly perpendicular; antennæ with the second joint subincrassate, thickened towards the apex, much longer than first; rostrum reaching the intermediate coxæ; pronotum and prosternum convex, the former not constricted, lateral margins rounded, not sinuate, posterior margin very slightly sinuate; scutellum moderately large and tumid; corium including cuneus passing abdominal apex; cuneus a little longer than broad; membrane with two basal lateral cells, the innermost very small.

1462. **Berta lankana**, *Kirby* (Capsus), *J. Linn. Soc., Zool.* xxiv, p. 107 (1891): *Kirk.* (Berta) *J. Bomb. N. H. Soc.* xiv, p. 57, pl. A, f. 7, pl. B, f. 5 (1902).

Head, pronotum, and scutellum black, shining; antennæ black, with the bases of the first and third joints very pale stramineous; eyes stramineous; corium and cuneus shining piceous, a white transverse fascia a little beyond base of corium and a similar fascia at base of cuneus; membrane pale fuliginous, subhyaline; abdomen beneath with a broad basal transverse white fascia; scutellum finely transversely striate.

Fig. 314.—*Berta lankana.*

Length 4 millim.

Hab. Ceylon; Nitagala, Pundaluoya (*Green*).

Division *PLAGIOGNATHARIA.*

Plagiognatharia, *Reut. Bih. Vet.-Ak. Handl.* iii, 1, p. 7 (1875).
Chlamydataria, *Kirk. Faun. Hawaiiensis*, iii, pt. ii, p. 131 (1902).

The narrow clypeus, distinctly carinately compressed, is the principal structural character that distinguishes this division; the surface is also more or less shining.

Synopsis of Genera.

A. Body pilose; second joint of antennæ considerably longer than breadth of head including eyes . . . . Psallus, p. 482.

B. Body pubescent; second joint of antennæ about equal in length to breadth of head including eyes .... CAMPYLOMMA, p. 483.

Genus PSALLUS.

Psallus, *Fieb. Wien. ent. Monatsb.* ii, p. 320 (1858); *id. Eur. Hem.* pp. 74 & 305 (1861); *Reut. Act. Soc. Sc. Fenn.* xiii, p. 101 (1884).
Apocremnus, *Fieb. Wien. ent. Monatsb.* ii, p. 320 (1858).
Agalliastes (part.), *Fieb. Eur. Hem.* pp. 74 & 310 (1861).
Atractotomus (part.), *Fieb. Eur. Hem.* pp. 71 & 294 (1861).
Liops (part.), *Fieb. Verh. z.-b. Ges. Wien,* xx, p. 254 (1870).

Type, *P. roseus*, Fabr., a Palæarctic species.

Distribution. Probably universally distributed, but not yet recorded from the Ethiopian Region.

Body oblong, sometimes subelongate (♂), or oblongly ovate or ovate in ♀, above more or less palely pilose; head vertically inclined; clypeus distinctly prominent, compressed; eyes somewhat large, generally strongly granulate; rostrum reaching or passing the intermediate coxæ; antennæ with the second joint in the ♂ longer than in the ♀ and a little thickened apically; pronotum short, apical margin straight or nearly so, lateral margins straight, base truncate; posterior femora a little incrassate.

The male is more elongate than the female, and the sexes sometimes vary considerably in colour.

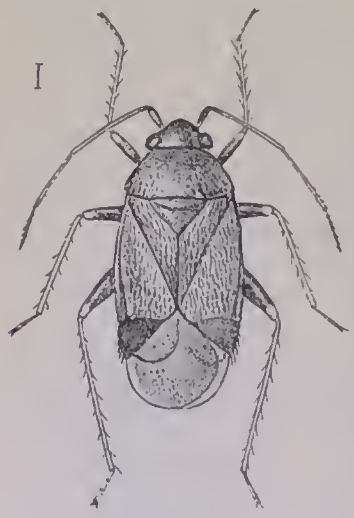

Fig. 315.—*Psallus singalensis.*

1463. **Psallus singalensis**, sp. n.

Black, thickly palely pilose; lateral marginal areas of the corium obscure brownish-ochraceous; cuneus pale castaneous; membrane fuliginous, its apical margin paler; femora piceous, their apices, the whole of the tibiæ, and tarsi (excluding apices) ochraceous; antennæ with the first joint black, second ochraceous with its apex fuscous, third and fourth fuscous; rostrum and trochanters brownish-ochraceous; tibiæ speckled with fuscous; corium and cuneus densely, pronotum and head less thickly palely pilose.

Length 2 millim.

Hab. Ceylon; Peradeniya (*Green*).

Allied to the Palæarctic species *P. obscurellus*, Fall.

Genus CAMPYLOMMA.

Campylomma, *Reut. Act. Soc. Sc. Fenn.* xiii, p. 52 (1884).
Agalliastes (part.), *Fieb. Eur. Hem.* pp. 74 & 310 (1861).
Atomoscelis (part.), *Reut. Bih. Vet.-Ak. Handl.* iii, 1, p. 57 (1875).

Type, *C. nigronasuta*, Reut., a Palæarctic species.
Distribution. Palæarctic and Oriental Regions.

Body ovate, pubescent; head shining, vertical, short, rotundately triangular, with eyes a little broader than anterior margin of pronotum; antennæ with the second joint about equal to breadth of head; pronotum shortly trapeziform; posterior femora incrassated, largely punctured with black; tibiæ blackly punctate and spinulose; rostrum reaching the posterior coxæ; membrane biareolate.

1464. **Campylomma livida**, *Reut. Ent. Tidskr.* v, p. 199 (1884).

Fig. 316.
Campylomma livida.

Pale ochraceous; head medially testaceous; first joint of antennæ (base and apex excepted) and extreme base of second joint black; femora sparingly speckled with black, posterior femora with three large black punctures on apical half beneath; spinules to tibiæ black; second joint of antennæ equal to breadth of head and about one-third shorter than base of pronotum.

Length, ♂, $2\frac{1}{2}$ millim.

Hab. Bengal (*Copenhagen Mus.*).

I am much indebted to Dr. Meinert for the opportunity of figuring this species.

Subfamily III. ISOMETOPINÆ.

Isometopidæ, *Fieb. Wien. ent. Monatsb.* iv, p. 259 (1860).
Isometoparia, *Reut. Bih. Vet.-Ak. Handl.* iii, 1, p. 60 (1875).

The Isometopinæ, founded by Fieber as a family, and treated by Reuter as a division, are here considered, as previously explained, a subfamily of the Capsidæ. Their principal characteristic is the presence of distinct and well-developed ocelli; in some genera also the scutellum is elongately produced, and in another genus subsequently described the eyes are extremely large and almost meet above the head. The Isometopinæ are at present little known, and but few genera and species are recorded. They are minute insects, and require special search and collecting.

Synopsis of Genera.

A. Scutellum long and angularly produced; eyes of moderate size and placed wide apart.
  a. Head including eyes very little narrower than anterior margin of pronotum; lateral margins of scutellum sinuate .... ISOMETOPUS, p. 484.
  b. Head including eyes much narrower than anterior margin of pronotum; lateral margins of scutellum obliquely straight .. TURNEBUS, p. 485.
B. Scutellum small; eyes extremely large and almost meeting above head .... SOPHIANUS, p. 485.

Genus ISOMETOPUS.

Isometopus, *Fieb. Wien. ent. Monatsb.* iv, p. 259, pl. vi. *a* (1860): *id. Eur. Hem.* pp. 61 & 237; *Reut. Bih. Vet.-Ak. Handl.* iii, 1, p. 61 (1875).

Type, *I. intrusus*, H.-Sch., a European species.

Distribution. Palæarctic and Oriental Regions.

Somewhat broadly ovate; head broad, rounded in front, ocelli present and distinct; antennæ absent in the Burmese example here enumerated, but described in typical examples as having the third and fourth joints slender; rostrum reaching the second abdominal segment; pronotum much broader than long, the lateral margins convexly rounded; mesonotum exposed in a lobate process on each side; scutellum long, narrowed posteriorly; hemelytra convexly ampliated on each side; cuneus broad.

I feel no doubt that the single Burmese specimen now before me, minus legs and antennæ, belongs to this Palæarctic genus.

1465. Isometopus feanus, sp. n.

Brownish-ochraceous; head and lateral areas of pronotum and corium paler in hue; membrane pale fuscous with the lateral and apical areas greyish; eyes pale reddish; head with a distinct discal transverse impression between eyes, the ocelli very much nearer to eyes than to each other; pronotum finely transversely rugulose, with a central short longitudinal impression on anterior area; scutellum triangularly foveate at base, beyond which it is finely transversely rugulose; corium finely rugulosely punctate, its lateral margins slightly reflexed.

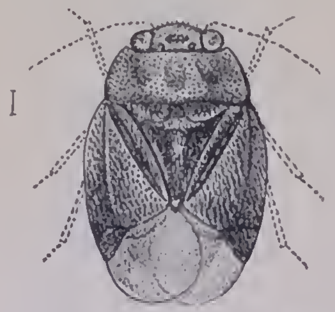

Fig. 317.—*Isometopus feanus.*

Length 2 millim.

Hab. Burma, Palon (*Fea*).

Genus TURNEBUS, nov.

Type, *T. cuneatus*, Dist.

Distribution. Ceylon.

Broadly ovate; head short, broad, anteriorly rounded, but, including eyes, much narrower than anterior margin of pronotum; ocelli distinct and placed near eyes; antennæ finely setose, basal joint scarcely passing lateral margins of head, second about the length of third and fourth together, the last two slender; rostrum long, extending through two-thirds of the abdomen from base; pronotum short, broad, punctate, very much broader than long, the lateral margins convexly rounded, the posterior margin bisinuate, the anterior angles distinctly subacutely prominent; mesonotum exposed; scutellum very long, angularly and regularly attenuated from base; corium with the lateral areas convexly ampliated; cuneus longer than broad; legs short and slender.

1466. **Turnebus cuneatus**, sp. n.

Fig. 318.
Turnebus cuneatus.

Head, pronotum, mesonotum, scutellum and sternum ochraceous; eyes, first and second joints of antennæ, corium, rostrum, abdomen beneath, and intermediate and posterior femora black; apex of rostrum ochraceous; above somewhat coarsely punctate and shortly pilose; membrane pale smoky hyaline; antennæ finely, palely setose; lateral margins of pronotum distinctly reflexed.

Length $3\frac{1}{2}$ millim.

Hab. Ceylon; Pundaluoya (*Green*).

Genus SOPHIANUS, nov.

Type, *S. alces*, Dist.

Distribution. Ceylon.

Ovate, head broad, deflected anteriorly, the eyes very large and broad, coarsely granulate, nearly meeting on vertex and almost touching the anterior margin of the pronotum; two distinct and prominent ocelli placed between the eyes; antennæ with the first joint short and globosely incrassate, second joint about four times as long as first, very widely and laminately incrassate, gradually widened from base, its apex broadly, a little sinuately truncate, the two apical joints very short, the third slender, the fourth moderately thickened; rostrum reaching the posterior coxæ; pronotum convexly tumid, deflected anteriorly, with a narrow anterior collar, its posterior margin truncate and about twice as

broad as anterior, its surface sparingly but somewhat coarsely punctate; mesonotum exposed; scutellum somewhat small and moderately tumid; hemelytra broad, finely punctate; cuneus broader than long; membrane longly passing abdominal apex; legs mutilated in typical specimen.

1467. **Sophianus alces**, sp. n.

Head, antennæ, pronotum, mesonotum, scutellum, and body beneath black; eyes dull grey; apex of scutellum, hemelytra, and the two apical joints of antennæ dull flavous; apex of clavus, lateral vein to corium, and basal and apical margins of cuneus piceous; membrane very pale fuliginous hyaline; pronotum distinctly coarsely punctate; corium obscurely pilose and obsoletely finely punctate.

Fig. 319.
Sophianus alces.

Length 2 millim.

Hab. Ceylon; Yatiyantota (*Green*).

I have received a single specimen of this, the most extraordinary Capsid with which I am acquainted, the large eyes giving it a somewhat Saldoid appearance. Its position in the Isometopinæ is however clear, and in that view I am supported by my friend Mr. E. Saunders, whose opinion I was glad to receive on the question.

Species of Capsidæ known only by descriptions and which I have failed to identify.

1468. **Capsus albipes**, *Motsch. Bull. Soc. Nat. Mosc.* xxxvi (2) p. 82 (1863).

Black; head rufous; lateral margins of hemelytra and the legs white; head triangular, shining, front foveolate, apex of clypeus and the eyes fuscous-black; pronotum transversely trapeziform, subconvex, strongly punctate; scutellum triangular, rugosely punctate, posteriorly elevated, shining; hemelytra medially moderately dilated, posteriorly attenuated; membrane unicolorously opaque; anteriorly very distinctly punctate; body beneath black.

Length "$\frac{3}{4}$ to $\frac{4}{5}$ line."

Hab. Ceylon; Patannas (Patna?) Mt. (*fide Motschoulsky*).

1469. **Deræocoris rubrovulneratus**, *Motsch. Bull. Soc. Nat. Mosc.* xxxvi (2) p. 83 (1863).

Black, punctate, thorax shining with its posterior angles, the apex of scutellum, and "axillis geniculisque" rufous-testaceous;

the anterior and posterior margins of the membrane mutilated, red; anterior tibiæ somewhat white; head triangular, glabrous, shining, the front between eyes with two red or testaceous spots; eyes transverse, prominent, fuscous-cinereous; pronotum transversely trapeziform, shining, strongly punctate, subconvex; scutellum triangular, rugosely punctate, somewhat shining; hemelytra elongate, the base sparingly punctate, medially moderately dilated; membrane posteriorly truncately sinuate, laterally incised, apex angularly produced.

Length "$1\frac{1}{2}$–2 lines."

Hab. Ceylon; Newera-Ellia Mts. (*fide Motschoulsky*).

1470. **Deræocoris piceoniger**, *Motsch. Bull. Soc. Nat. Mosc.* xxxvi (2) p. 84 (1863).

Elongate-ovate, shining, piceous-black; rostrum, femora, and antennæ reddish, bases of femora black; tibiæ and tarsi palely testaceous; head large, triangular, impunctate, posteriorly submarginate, front unequal; eyes ovate, convex, distinctly granulose; antennæ with the first joint half as long as head, second three times longer; pronotum strongly transversely trapeziform, moderately convex, impunctate, posteriorly a little deflected, anteriorly narrower than the head, posterior angles moderately rounded; mesonotum strongly transversely arcuated; scutellum triangular, impunctate, anteriorly a little deflected; hemelytra as broad as pronotum, impunctate, subparallel; appendices somewhat distinct, furnished with a parallel lateral vein; legs robust, tibiæ sparingly setose.

Length "$\frac{3}{4}$ line."

Hab. Ceylon; near Colombo (*fide Motschoulsky*).

1471. **Leptomerocoris albovirideseens**, *Motsch. Bull. Soc. Nat. Mosc.* xxxvi (2) p. 85 (1863).

Elongate, nearly parallel, depressed, shining, whitishly pilose, white with a greenish tinge; head, pronotum, and scutellum paler; eyes of moderate size, strongly prominent, shining, piceous-black; antennæ with the apex of the second joint red; head triangular, smooth, the vertex subconcave, posteriorly transversely impressed; pronotum subconcave, trapeziform, anteriorly glabrous, and narrower than head, posteriorly irregularly punctate, dilated, base medially sinuate, posterior angles distinctly rounded, laterally concavely subarcuated; mesonotum concealed; scutellum triangular, impunctate, medially impressed; hemelytra of the breadth of pronotum, elongate, posteriorly roundly subattenuated, almost hyaline, pilose, lateral vein parallel; appendices indistinct; legs long, slender, subobscurely varied; tibiæ nude.

Length "$1\frac{1}{5}$ line."

Hab. Ceylon; Patannas (Patna?) Mt. (*fide Motschoulsky*).

Specimens described by Walker, but of which the types are non-existent, and which may probably have been suppressed without record.

Capsus semiclusus, Walk. Cat. Het. vi, p. 118 (1873).
Hab. Ceylon.

Capsus subirroratus, Walk. Cat. Het. vi, p. 119 (1873).
Hab. Ceylon.

Leptomerocoris simplex, Walk. Cat. Het. vi, p. 145 (1873).
Hab. Ceylon.

Monalocoris bipunctipennis, Walk. Cat. Het. vi, p. 159 (1873).
Hab. Ceylon.

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